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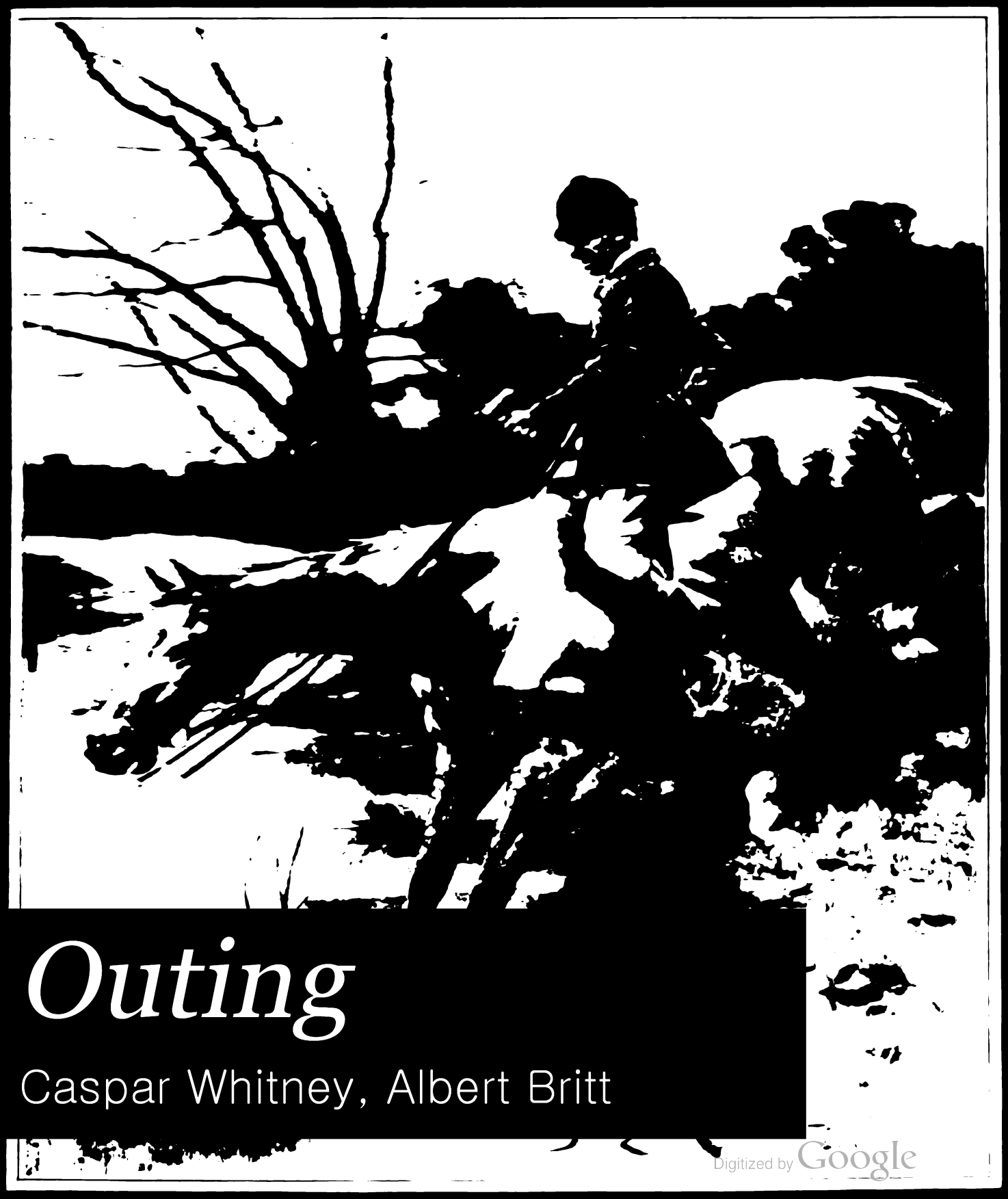

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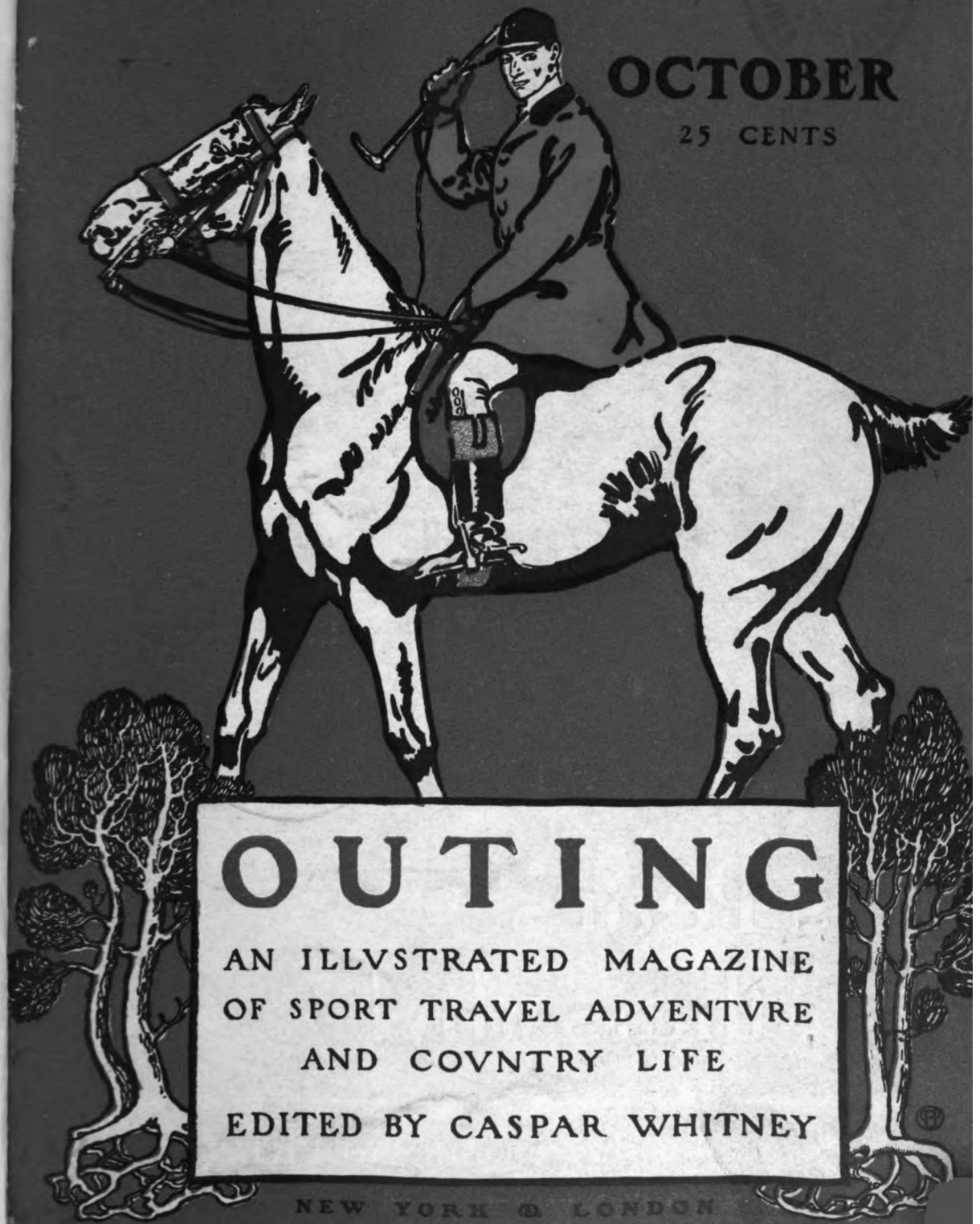

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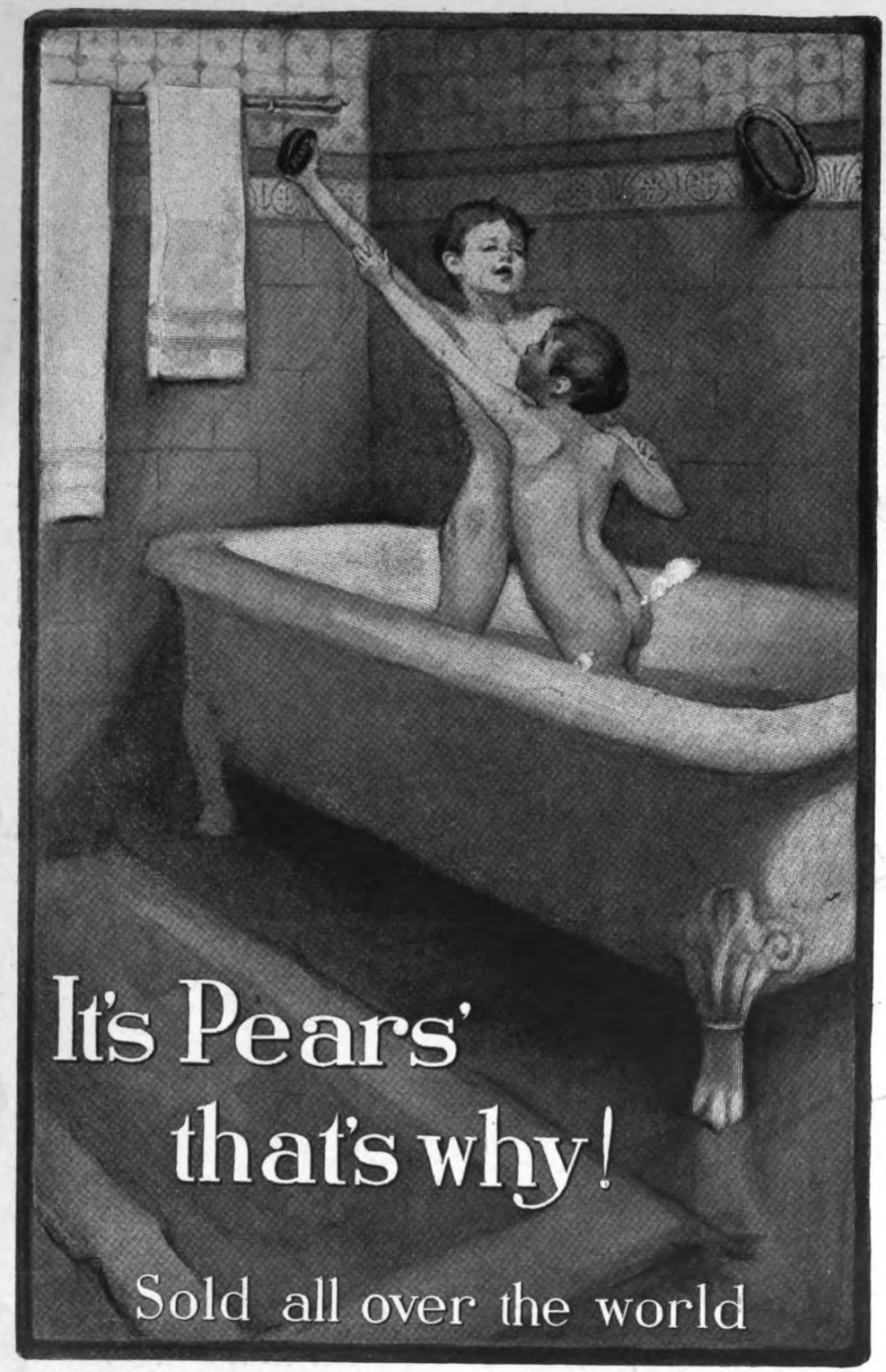

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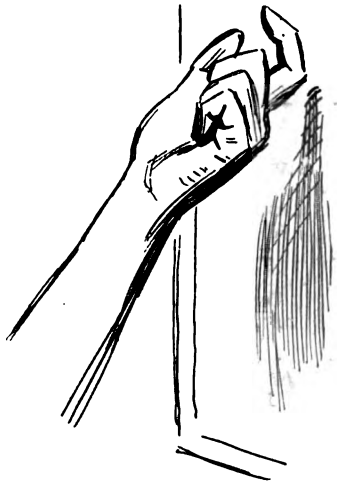

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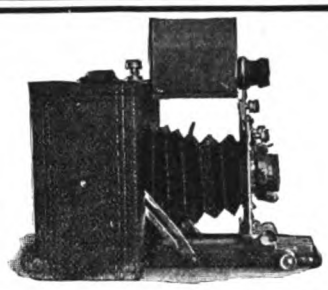

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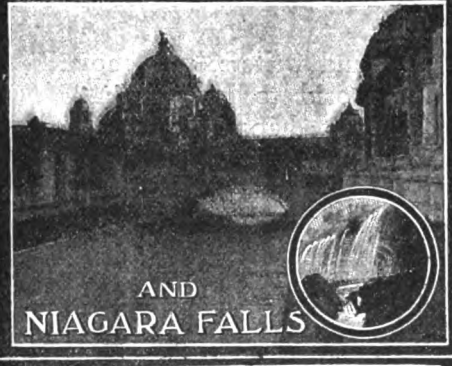

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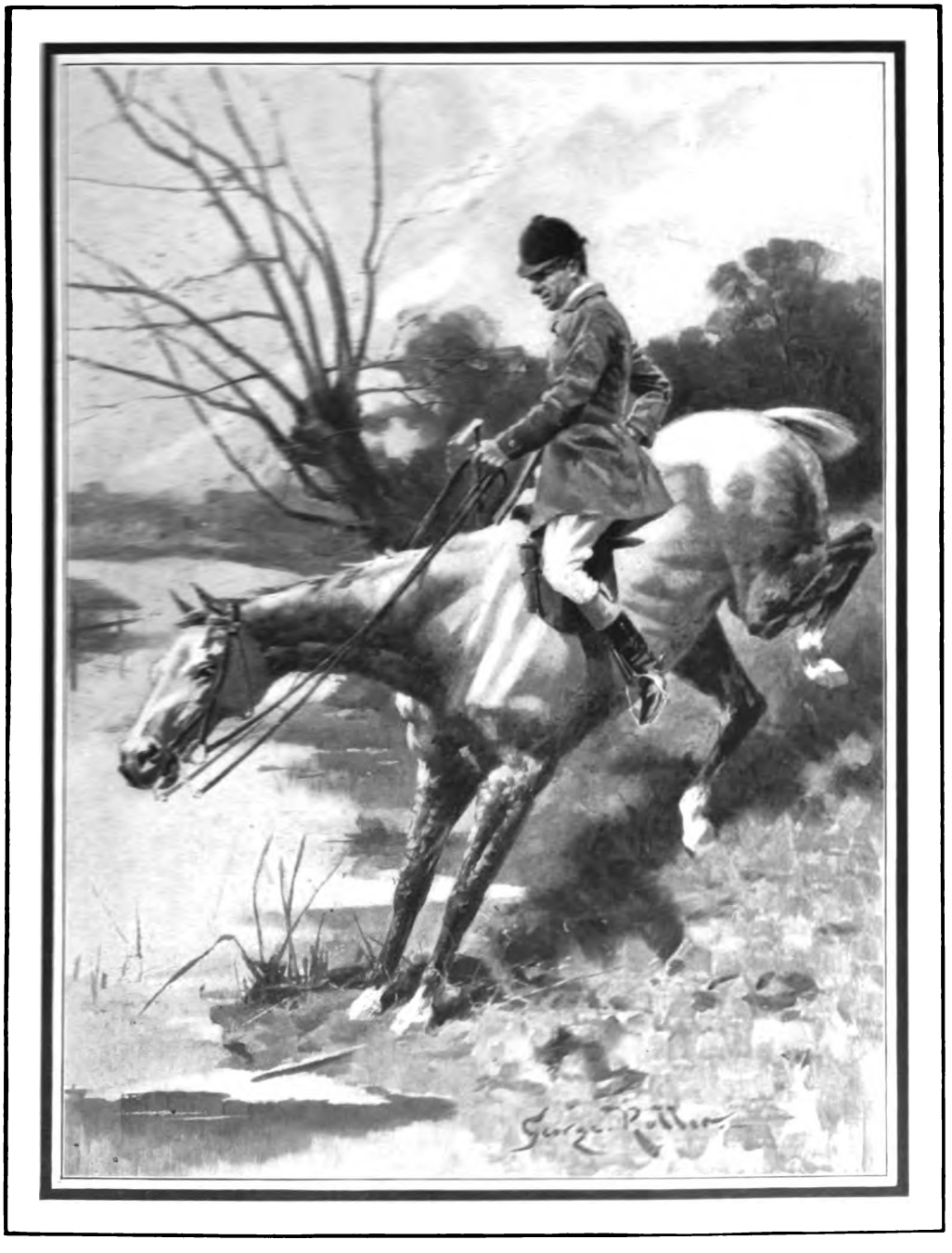

HOW DEEP IS IT?

See Fox Hunting in England, page 4[illegible].]

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OUTING

VOL. XXXIX OCTOBER, 1901 No. 1

THE RUFFED GROUSE AND ITS SHOOTING

By Edwyn Sandys

AS the red grouse of Britain is the king of the entire grouse family, so is his ruffed relative, our own *Bonasa umbellus*, the best of all his race to be found this side the big salt pond. Nor is the premier position among the grouse of this continent a trifling honor, for we have many varieties of the race and good game birds withal. Largest of these is the big sage grouse, which, unfortunately, owing to its diet, is not a delicacy upon the board. Much better known is the pinnated grouse—the prairie chicken—and its varieties, haunters of the great grassy seas of northwestern Canada, and of our own prairie States. Its near relative, the heath hen, was once common in the eastern States, but is now confined to Martha's Vineyard. The dusky grouse, second in size only to the sage grouse, or cock of the plains, inhabits the wooded ranges of the west from New Mexico to Alaska. That rare good bird, the sharptail grouse of the prairies, is beloved of sportsmen, while the Canada grouse, or spruce partridge, and the beautiful willow ptarmigan and its near relatives are by no means to be despised.

I am perfectly well aware that many sportsmen prefer the open shooting of the prairies to any other form of sport with the grouse, but that does not necessarily prove the superiority of the work in the open. I have no fault to find with the prairie chickens—too many sweet memories of golden days in many States yet linger for that—but I prefer to shoot ruffed grouse. The prairie shooting is, as a rule, a bit too easy, and there is a trifle too much sameness about it. When birds are plentiful it is just the thing for a man who has traveled far for his sport and who wants as much as possible of rapid action during a limited holiday, but it never has presented that charm of charms—the infinite variety of ruffed grouse shooting. And as a test of skill, which is a source of delight to keen sportsmen, it lacks many valuable accessories. The machine-like precision of a crack performer over prairie country is all very well and is interesting so far as it goes, but it cannot possibly rival the rapid work in thick cover, where conditions vary with every shot. I have heard men boast of their fine shooting at chickens in tall corn. That is all right, and it may have been very difficult, but how would it have been with trees in place of corn—or, in other words, ruffed grouse shooting instead of chicken shooting? To my mind, one of those rarely-enjoyed really good days with the ruffed grouse is the very finest test of a man's skill and resourcefulness, for both will surely be taxed to the uttermost. And each good shot will be long remembered. I suppose I have killed as many grouse of all varieties as the average man who shoots purely for pleasure, yet the incidents of many days on the prairies are forgotten, while those of the ruffed grouse covers refuse to down. Empty shells of mine might be found to-day in the woods of Nova Scotia, New Brunswick, Ontario, Quebec, Maine, Michigan, Wisconsin, Manitoba, Assiniboia, Alberta, British Columbia, Vancouver Island, Minnesota, the Dakotas, etc., and I feel free to say that if those shells could be gathered into one pile, and another pile made of the skulls of the slain birds, the result would suggest

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a mountain and a molehill. Those who have had experience with ruffed grouse will readily guess which would be the molehill.

The very difficulty of the shooting is one of its greatest charms. Beautiful, strong and swift, the grouse is also no mean tactician. He not only chooses as his haunts the most difficult ground, but he is artful to a degree in baffling the efforts of his pursuer. When flushed he rises with a sudden boom of whirring pinions and makes off with a headlong, reckless dash which is suggestive of anything rather than cool calculation. Yet those who have closely studied his methods know that no other bird is so quick to take advantage of every natural shelter which can interfere with the flight of shot. A grouse compelled to rise in a comparatively open spot will dart like a feathered cannon ball for the nearest cover, or if a big tree be close enough, he will whisk behind its trunk and keeping it between himself and the gun, buzz away to safety. Flushed in a favorite haunt, half way up some hillside, he will slant downward at an electric clip, offering an extremely difficult mark. At certain seasons he is found in outlying thickets, frequently at a considerable distance from woods. Under such conditions, he trusts mainly to his speed as he roars away to the saving trees, but at the same time he never forgets to take every advantage of the lay of the cover, scant though it may be. His golden rule appears to be: "Start when the man thinks you won't, go as fast as you can without setting yourself afire, and get everything that will stop shot between yourself and the gun." The one serious weakness of the grouse's system of defensive tactics is his habit of treeing when flushed by a dog. This is an interesting point, as it strikingly illustrates the folly of sticking to old-fashioned methods after improvements have been introduced, and also that folly of all follies—underestimating the ability of your opponent. Aeons on æons ago the grouse developed that trick of taking to a tree to avoid peril terrestrial, and no doubt it considered itself a very smart bird. At that time, strangely enough, its two winning cards in the game of life and death were taking to a tree and leaving a tree. Being a bud eater at certain seasons the grouse naturally sought the trees for food. Among the branches it was comparatively safe from quadrupeds, although some of its foes were clever climbers. But there were others—the birds of prey—and to avoid these the grouse went back to earth. So it played its game of going to the trees to escape its four-footed foes, and dropping to the rocks and brush to baffle winged ones, and this must have answered very well for a long time, for the grouse flourished and waxed fat. His one human foe was then an Indian, clever with bow and arrow and snares, but still the treeing trick was useful, for good arrows were easily lost if shot upward among trees, the grouse was comparatively small game, while an Indian hated to make arrows as he hated work in general. But the old-fashioned firearm eventually became common, and at once the grouse's erstwhile strong point became its weakness.

I have no doubt that birds that were once wounded in trees may have learned to trust to their wings when next man approached, for to-day the grouse, except in most remote corners, will seldom tree unless the man be accompanied by a dog. To the birds the dog is merely the old four-footed peril—a fox-like creature which cannot climb—and a tree is an absolutely safe sanctuary. Naturally enough the first impulse is to at once take the oft-tried remedy for a well-understood evil. Hence we see birds tree above the dog and remain calmly looking down at the intruder, and even moving upon the limbs as though only slightly interested in the whole business. But let the man follow the dog, and a change takes place. One of two things happens—either the grouse leave the tree, or they stretch to their full hight and remain bolt upright and perfectly motionless. When so posed only an experienced eye can readily detect them, for they would easily pass for so many decayed and broken stubs. Even the skilled sportsman, who knows this habit of the grouse, and who is warned by the actions of his dog that the game is somewhere in a tree immediately above, frequently has difficulty in locating the quarry. His safest plan is first to let his eye follow the trunk to the top, as the probability is that the game will be perched near the trunk. If this fails, the next thing is to begin at the lowest limb and examine it from the trunk to the tip, and repeat the process limb after limb. This, of course, must eventually locate the game, but I should advise the sportsman to keep his gun ready for instant action. Strange as it may appear, the bird

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seems to know the instant it is observed; then it at once takes wing. I have seen this happen so often that I cannot doubt its truth.

Most people who have enjoyed the pleasures of the woodland path have heard the peculiar ventriloquial sound, known as the drumming of the ruffed grouse. This drumming, while heard most frequently during the breeding season, is continued at intervals during the summer and early autumn months. It is a low, muffled beating, yet it may be heard at a considerable distance. It is caused by the beating of the wings, beginning with measured strokes which rapidly run into each other—buff-buff-buff-buff-bur-r-r-r. A popular belief is that the grouse always drums upon a fallen log and produces the sound by beating the log with stiffened wings. This is erroneous, for the bird will drum upon a stone, a grassy or mossy mound, or upon the ground, as suits its fancy. It may be a call to the female, but it certainly is continued long after the breeding season. I have a suspicion that the motive for the drumming is the same which prompts the barnyard cock to clap his wings and crow whenever the humor strikes him. He just feels that way.

THE RUFFED GROUSE DRUMMING.

In any event the sound is a baffling one, which may appear to come in turn from right, left, front and rear, although the bird has not changed its position. It is no easy task to stalk the concealed drummer, yet any one who has the patience to advance only while the drum is in action, and to remain motionless but alert during the intervals, may obtain a view of the curious per-

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THE CANADA GROUSE.

formance. I have seen grouse drum many times at various distances. Most of these birds were upon logs, and between the acts they moved to and fro with mincing steps, while they appeared to glance sharply in every direction as though on the lookout for an approaching female or for a possible foe. When ready to drum they stood erect with the head thrown back and the beautiful tail raised high and spread like a fan. The wings were spread to their full extent, and then brought sharply against the sides in successive strokes, which increased in rapidity until the separate strokes were blurred together in a rolling sound somewhat like low distant thunder or the rumble of a carriage rapidly driven over a short wooden bridge. A clever boxer with soft gloves might drum an imitation of it upon a punching-bag. The sound of a boot against a football is not unlike the peculiar noise of the opening beat.

Now, this bears upon the oft-disputed question of whether the bird's wings strike the log or the bird's body. I say the body and the body only, although of course they may now and then accidentally strike whatever the bird may be perched upon. Years ago we had a huge gobbler of half-wild blood, and this turkey, as is common to his kind, used to strut and show off during the breeding season. I used to stalk the old fool when he was in an ecstasy of strutting, get astride of him, and hold him with my arms about his broad breast. He seemed to be full of air, like a huge bladder, and I'd slap his crop and sides as fast as I could till he'd let the air out of his mouth with a rush. Then I'd get off him and leg it for all I was worth to the nearest cover, for he was a haughty old fowl and quite a fighter! The sound of my hands batting him was exactly like the drumming of the grouse, and I suspect that the grouse, a distant relative of the gobbler, fills certain air-sacs with ozone, and beats himself with his wings to produce his muffled drumming.

The ruffed grouse builds a leaf-lined nest upon the ground at the base of a tree or beside a log, early in May. The eggs number from eight to fourteen, and are buff-colored, which greatly aids in their concealment. The young are active and very clever at concealing themselves at the slightest warning. The mother is a devoted parent, never hesitating to throw herself in the path of an intruder, and by simulating lameness to draw all danger toward herself. This pretty deceit is one of the most touching sights which reward the observant bird-lover. The young usually remain together until the late fall, and, if undisturbed, perhaps throughout the winter.

The turning of the leaf brings the sportsman's merry season. In the mellow beauty of brave old autumn's ruddy prime comes the cream of the grouse shooting, although the sport continues until the white, sharp days of the sterner season. I prefer the season when "the gorgeous woods are gleaming."

Let one day serve as a picture of many.

* * * * *

To Doc's great surprise I am at least half ready when the trap pulls up at the gate. Old Mark, the great roan king of native setters, rests his broad muzzle on the dashboard, and with a thump of his tail bids me dignified greeting. At my heel is Don, cold-nosed, wire-thewed, and keen as a spring.

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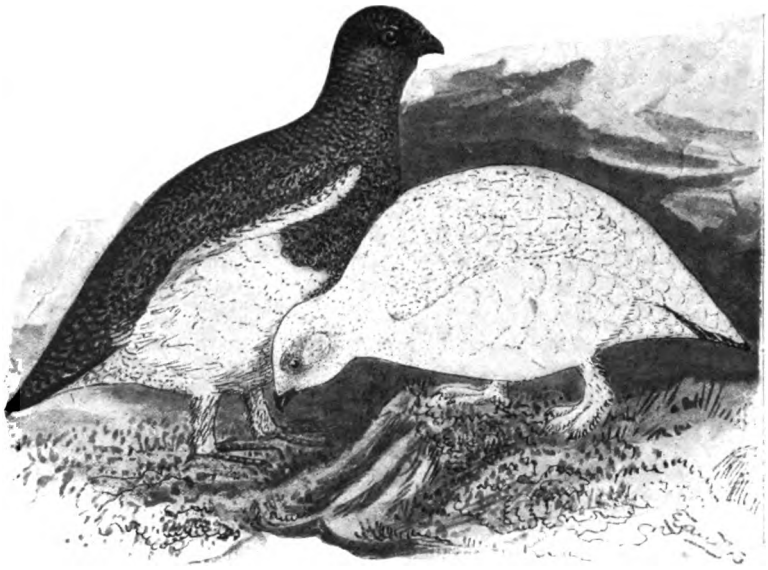

THE PTARMIGAN IN WINTER AND SUMMER PLUMAGE.

In fact, his plainly prominent ribs suggest that a spiral spring might have constituted his last meal, but his eyes are clear as morning drops on grass, while his lemon head and snow-white body shine like satin.

"The 'bull' looks fit this morning," placidly remarks Doc, for he hates a pointer as the devil.

"Yep, he's good to-day; and the old Newfoundland's able to ride a mile or so, apparently," I sweetly retort, for we love each other, we two, and each has a cracking good dog and knows it.

"Shall the bow-legged bull ride—it's five miles, you know?" continues Doc, insinuatingly.

"There's no ambulance call in my kennel!" I snap back.

"Might be handy before night," sighs Doc, and we both laugh as I climb up.

As we bowl along for mile after mile Don's nose is within an inch of the horse's heels. There is no dust, he loves to travel so, and seldom indeed has he to break his own peculiarly rapid trot. Under the trap he is safe from attacks by farm dogs, who, if they try to dash in from the side, merely take a tour with a wheel or get run over. Woe be unto the brute that may be determined enough to attempt a rear raid. Don, when put to it, would sooner fight than eat, and he is always in fine condition. Five miles from home we reach the first of the chosen cover. Five minutes later the nag is comfortable in an old log shed, and we are ready for business.

It is good grouse country. Leaving the well-cultivated fields behind, we enter an irregular belt of clearing where old brush-piles and stumps are overhung with a snarl of briars and slim second growths. Back of this the unbroken forest spreads for miles, while near the edge of the forest winds the broad bed of an almost dried-up creek. This is a confusion of comparatively low cover. The larger trees are not too thick, but quick snappy work must be the order in most of the brush. We decide to work along the face of the woods until the comparative open has been thoroughly beaten. Any grouse found in outlying clumps will surely dash for the woods, and our method means that most chances will be side shots, when the grouse's trick of dodging behind trees will avail but little. The dogs are given the word, and we move forward about forty yards apart. Now comes a beautiful exhibition of dog work. The big setter, the best dog on ruffed grouse in the county, knows exactly what is required of him; the pointer, the best quail dog on a grouse day that ever I saw, knows his mighty rival too well to attempt any liberties. So, instead of sailing away at top speed and splitting two-hundred yard tacks, they merely canter, and, while scorning to follow each other, each keeps close watch of the other's movements. Suddenly the pointer stops in the middle of a stride, and, like his shadow, the great roan loses motion. My whistle, held pipe fashion, purrs a low warning (the voice alarms grouse), and the brace are as steady as trees. In a moment a white and gray ball goes bouncing toward a brush-heap, and the pointer's tense muscles slacken. It is too early in the day for

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rabbit, and Don knows that a something which stingeth like an adder lies in my pocket. He gives a yearning look at the vanishing cottontail, and the quest continues.

A sudden bursting roar of wings, a clash of twigs, a swirl of painted leaves, and a brown shell is boring a hole through sunlit space. He is a beautiful picture as he crosses me with outstretched neck leading an electric fan of wings. Not caring to stand idly while a grand grouse plucked itself, or cut down a tree through having lost control of its "auto," I snapped the twelve into position and whirled the tapered tubes until they swung two feet ahead of the flattened ruffs. It was a glorious picture, yet a kaleidoscopic effect, for as my finger pressed the trigger the feathered fan stopped buzzing, the beautiful head went up and I heard the spiteful "squinge" of smokeless powder the fraction of a second before my shoulder felt the jar of my own weapon. Both dogs went down, and through the brush came Doc. His blue eye sparkled as it met mine, and it asked a question as plainly as words could have done. I felt like lying, for it was a very close thing, but sportsmanship is mighty and it prevailed.

"*Aprez vous!*" I sadly muttered in about all the languages of the courts that I am aware of, and then I hustled in a second barrel of "You-dam-red-headed-fool-if-you-cross-fire-me-again-I'll-fill-you-full-of-shot!" "Gad! he's a bute!" lisped Doc as he smoothed the lovely plumage. "And he's fat, too!" he continued, as he slid what had been within an inch of being mine, into his pocket. Then we looked at each other and laughed heartily, for, after all, there is a something about the misfortunes of our friends which is not altogether displeasing.

The dogs soon got to work again and a memorable bit of sport followed. Dame Fortune was in a generous mood. Within five minutes the white dog had evened matters by pinning a big cockgrouse in the center of an almost open space. Doc thought it was a rabbit and sent me over. There was a clump of dog-roses, and while I was thinking a grouse might possibly be there, the grouse roared up and so startled me that I cut its head off before it had buzzed twenty yards.

The next notable event was the pitching of a missed bird into an outlying thicket on my side of the beat. I followed the bird and killed. At the report a second rose, which too was killed; then another and another whizzed away before I could reload. As Doc came hurrying over, still another grouse rushed to the open and collapsed. Then the dogs drew cautiously on; something went out one side, while something else fluttered near me. We fired almost together and as I took a fat woodcock from Mark, Doc shouted, "I've got your rabbit —do you want him?" When he saw the cock we ceased to be friends and both tramped into the cover without a word. Soon both barrels told that Doc was busy and the next minute a bullet-headed beauty came twittering past me and collapsed. We had struck a veritable pocket, and the possibilities of mixed grouse and cock shooting spurred us to rapid action. Only one more cock was found however.

THE SHARPTAIL GROUSE.

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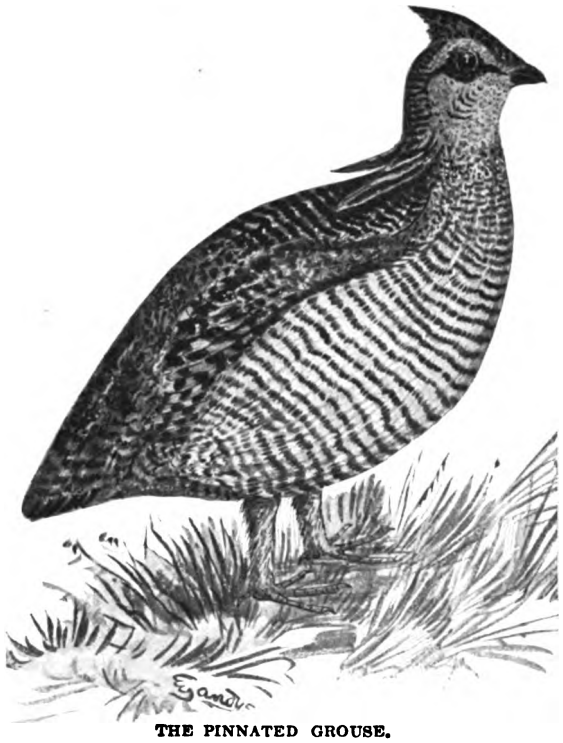
The next move was to the bed of the creek, and we advanced one on either side, the dogs working between. Prettier ground could not have been chosen. The course of the creek's bed was like a winding corridor walled by sturdy trees and no matter which direction birds took, one gun was certain to have a clear chance. The dogs toiled slowly through the tangled stuff while we followed abreast. Every now and then would come the impressive pause of one or other dog, almost immediately followed by the hollow thunder of strong wings and the rush of a swift brown body. Usually one barrel, sometimes two, did the trick. Once a bird boomed away while four charges of shot hissed vainly in pursuit. The incident caused a hearty laugh and a lively interchange of the sort of talk that can take the bark off a tree. But little things of this sort merely sear men's souls and are soon forgotten. In time the end of the cover was reached and we pulled up for a rest and a bite. Our four-footed friends, too, were quite willing to roll and stretch on the soft fall grass. The big roan showed no trace of the rather heavy campaign, but the white fellow's rat tail was crimson for full four inches and his flanks were streaked with plenty of that same red badge of courage.



THE PINNATED GROUSE.

To my mind, one of the happiest periods of a good day's sport is when the pipes are drawing well after the midday snack. The dogs have had their crusts and stretch at ease in the cool grass. The coats with bulging pockets hang near-by. There is more choice ground to be beaten and plenty of daylight to do it in, and even should the afternoon prove a blank, enough game is already secured.

And then the handling and smoothing of the beautiful prizes so fairly earned by skill and manly, sportsmanlike methods. Every bird has had a fair chance and has been destroyed as mercifully as possible. To lie upon sweet grass at the fringe of a noble wood with a sun-kissed sea of stubble spreading far before is no great hardship. The view is ringed with fire where maples and nut trees mass their glowing tints; the fence lines, where the creepers, briars and sumachs are, show like rivulets of flames flowing down easy slopes, and over all the season's lovely haze, the smoke of the earth's burnt-offering for a bounteous field.

Doc knocks his pipe against his heel, and at the sound, the dogs spring to their feet, ready and eager for more work.

Quick echoes wake within the woods, the cut leaves drift, the dogs toil on while shadows creep. From huge, halted billows of forest we wade through the soundless surf of lesser growths and reach the open. Far away, the sun, like a crystal globe, filled with rare red wine, is foundering in a sea of silver mist.

The horse is glad to see us. Food and water a-plenty he has had, but his own stable is home, and he wants to get there. This time both dogs ride. Both have worked nobly and honors are easy. Few words are spoken. The hard hoofs drum the white road in regular cadence. Fence, field and orchard glide past in dim procession and twin puffs of fragrant smoke drift rearward to mingle with the mist, the fruity odors and the sweetness of it all.

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MOKI AND NAVAHO INDIAN SPORTS

By George Wharton James

MANY and diversified are the sports and games of the aborigine of the American Southwest. No treatise has ever been attempted which would give a comprehensive survey of the amusements and recreations of the primitive occupants of American soil. Yet such a book would be instructive as well as interesting, for, undoubtedly, much of a nation's inner thought is represented or made manifest in its sports. One has but to know of the place athletics held in the estimation of the Greeks to know much of their inner mental and religious conceptions. So with the Indian. To enjoy and to understand his sports with him is to penetrate that deep reserve which so often baffles and puzzles the white man. Even as that teacher of white boys learns more of their real selves when he unreservedly enters into their playground fun, so does the student best learn when he throws study to one side and plays with the object of his study.

The Amerind of the Southwest is a peculiar creature. He dances every month, but never for fun. The white man's conception of a dance is hideous blasphemy to him. To dance for mere pleasure would be to insult "The people of the Shadows," for that is the method by which he thinks they may be approached by human beings. Hence while to dance for mere pleasure is wrong, to obtain pleasure out of the dance is not only allowable, but proper and right. So in dealing with the sports of the Amerind, it would not be inappropriate to include a full description of some of his most sacred and hallowed ceremonies.

Then, too, with some of these people the cultivation of the muscles of endurance is a part of their religious life. They run races, struggle in stern wrestling for hours as part of religious ceremonials, yet they enter into these sports with as much genuine athletic zest as ever did football teams at an eastern college athletic carnival.

To obtain photographs of many of these games is almost impossible. The decided objection of the native to being photographed, the crowding together of the people during the ceremonies, the fact that some take place at night, and many other insurmountable factors, help explain the rarity of good photographs of the sports of the American Indian.

When I first began to visit the Hopituli, as the so-called Moki people of Northern Arizona should be known, I used to hear, as I was stretched out in my blankets at the foot of the mesa, early every morning, a noise of cowbells, as if a number of cows were being driven to pasture. But when the day dawned I was never able to find a cow anywhere near. This puzzled me for quite a while until one morning I determined to see what made the noise. To my amazement I saw cutting through the dim light a number of swart, active forms, with long black hair streaming down their backs, or fanned out into waving banners, clothed in nothing but a strap and a cowbell, the latter resting upon the haunch, and jangling furiously at each step the runner made. This then, was the explanation. The Hopi youth were practising running in obedience to the demands of their katchinas or totemic ancestors, and they assure me that it is no uncommon thing for a runner to go ten to twenty miles in the early morning during these periods of training.

The accompanying photograph is one of Mashongnavi, who traveled from a village forty miles away, on foot, for the purpose of hoeing his cornfield. He ran the forty miles, over the hot blazing sands of one of the real Saharas of the American Southwest, did his work, and returned to his home within the twenty-four hours, and when, next day, I met him again and he told me the story, there was not the slightest symptom of weariness or fatigue upon his stalwart frame. But he sat down and enjoyed a couple of cigarettes with an abandon of restfulness that was delightful to contemplate.

One of the ceremonies connected with the wonderful Snake Dance of the Hopituli is the race, which is run on the morning before and the morning of the concluding ceremonies. Long before dawn the ten or

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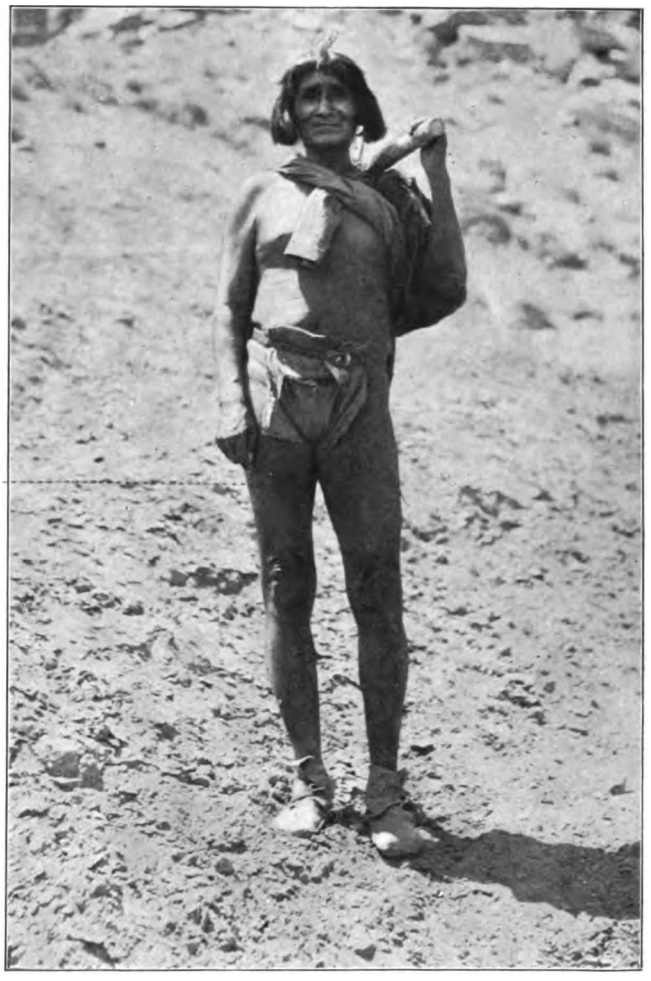
twenty participants leave the village, perched high upon its rocky elevation, dash down the frightfully steep trails into the valley, and are lost to sight in the darkness.

Then the whole village begins to assemble, men, women and children, to see the return. The first feeble shafts of eastern light find groups standing around at the head of the trail, on projecting rocks, everywhere from which a good view of the valley may be obtained.

By and by a tiny writhing streak is seen, like a snake twisting its way across the sandy plain. It is the racers.

What a superb athletic display! Bodies naked, perspiration streaming down, the wet bodies glistening in the rising beams of the sun, the long black hair flowing behind like strange steering rudders; the well-developed chests rising and falling rapidly with the exertion, every muscle, nerve and sinew braced to the effort; no Greek sculptor in the palmy days of the Olympian games ever had better models for his studies of the human form divine. The leader has arrived at the head of the trail, where he is well besprinkled by the priests who pray devout prayers while he reverently stands for a moment or two. Then he dashes ahead to the kiva, or underground secret chamber, of the Antelope fraternity, where he receives at the hands of one of the elders certain bahos, or prayer sticks, and a small gourd full of sacred water. These he takes to his cornfield, offers his prayers with the bahos, and sprinkles the ground with the water to propitiate the gods of the four quarters; and this is the reward of his long run.



MASHONGNAVI—WHO RAN FORTY MILES TO HOE HIS CORN

Now return to the head of the trail. The other racers are havir ir own account. At the fo ther young men are waiti ese bore cornstalks, melons, and the like, which they shared with the racers. Then, together the party came up to where the group of girls and women awaited their arrival.

And then what a scuffle occurs. Every girl and woman dashes forward to seize some particular youth of her choice and get from him his cornstalk. Sometimes two or three women will aim for a young man who seeks to avoid them all, as he wants to give his sacred plant to a girl of his own choice, who, unconscious of this preference, is chasing after some "other fellow." It is a scene which reveals human nature at first hand.

Happy is that maiden who succeeds in getting the cornstalk from her favored swain, for that means a happy marriage and a large healthy family of children.

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Now why these exhaustive displays of strength and speed? Are they for pure love of athletics as in the palmy days of Greece, and among true college athletes? Or is there some religious significance attached to them? A good deal of each. The Hopi has lived for many centuries among the harsh conditions of the desert land. Everything is wrested from nature. Nothing is given freely, as in such a land as Southern California for instance. Water is scarce and has to be caught in the valley and carried with heavy labor to the mesa summit. The soil is sandy and not very productive unless every particle of seed corn is watered by irrigation. Firewood is far away and must be cut and brought to their mesa homes with labor. Wild grass seeds must be sought where grass abounds, perhaps scores of miles away, and carried home. Pinon nuts can only be gathered in the pinon forests afar off, and to gain mescal the pits must be dug and the fibers cooked deep down in the mysterious recesses of the Grand Canyon. The deer and antelope are swift and can only be caught for food by those who are stout of limb, powerful of lung and crafty of mind. Hence in the very necessities of their lives they have found the use for physical development. And this imperative physical need soon graduated into a spiritual one. And the steps or processes of reasoning by which the chief motive is transferred from the physical to the spiritual are readily traceable. Of course, they are a "chosen people." "Those Above" have given especial favors to them. They must be a credit to those powers who have thus favored them. This implies a steady cultivation of their muscular powers. Not to be strong is to be a bad Hopi, and to be a bad Hopi is to court the disfavor of the gods. Hence the shamans or priests urge the religious necessity of being swift and strong.

The races I have described have all the interest that attaches to a great religious event, and, whether he wills it or not, a young man is for very shame compelled into the fierce competition.

There are seven chief towns or villages of the Hopituli, situated upon three elevated tongues of rock, or mesas. These are known respectively as the Eastern, Middle and Western mesas, or, as the Eastern one is nearest to Keams Canyon, which, for many years was the only known gateway to Hopi civilization, they are also named the First, Second and Third mesas. Forty miles from Oraibi, which is the largest town on the Western mesa, is a small Hopi settlement named Molu Kopi. It is not far away from the Little Colorado River, and near to the Mormon settlement of Tuba City. On every hand are to be found bands of nomad Navahos once the sworn predatory foes of the Hopi, but now kept somewhat in decent behavior by the presence of an Indian Agent who severely punishes every moral lapse.

Occasionally great sport can be witnessed at Tuba City between the Navahos and Hopituli Mokis. Three or four years ago several hundred of the latter and over two thousand of the former assembled at the call of the Indian trader for dances and athletic sports. And then was the time for a stranger to see the aborigine at his best. The Hopi director of the dances was Mootchka, whose costume was as astoundingly frightful as he could possibly make it. His naked body was smeared over with whitewash, some of which adhered and some of which did not. On his head was a mass of rudely woven black wool, crowned with the duplex pads of some wild flower. Around the waist was a similar black wool mat, fastened on with a Navaho belt of silver disks. When all was ready the dancers began. The trader's store yard was the plaza, and the roofs of all the buildings on the three sides of the square were covered with Navaho spectators, while the Hopi indulged in their Thanksgiving dances. Hour after hour they continued, manifesting a rhythmic variety that was as astonishing as it was pleasing. Some of the dancers were decorated, others were in ordinary costume, but all danced and sang with fervor and spirit.

The chief instrument was a large drum, made by hollowing out a section of a tree trunk, and covering the ends with rawhide which were tightly laced on with strips of the same material. The dull monotonous thump of the drum kept time, while dancers sang and rattled. Their songs are invocations to "Those Above" to continue their good gifts, and at the same time accept thanks for all that had been given. One dance was particularly beautiful. It was supposed to represent the movements of the planets in and out of the fixed stars. Two little girls brightly and beautifully dressed, waving feather plumes in their hands that glistened in the bright sunlight, threaded their way

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in and out of the lines of the dancers, themselves moving with an easy graceful swing that would have adorned any grand dame's city function.

To seek to penetrate the origin of these dances is to find ourselves in the darkest darkness of antiquity. Almost all Indian peoples have the firmly fixed notion within their hearts that the gods can be propitiated only by these exhausting dances. Consequently they are not performed by a few professional dancers, or even by certain families; all the people must dance. The smallest child, as soon as he is able to understand, must take his place with the elders, and the women and girls enter into the dances with the same religious fervor and zeal as is displayed by the men. And there is none of that sex enjoyment injected into their sacred dances, as there is in the white man's pleasure dances. The Indian men dance together, and the Indian women together, or, where both sexes participate, men are in one row and women in another. So that Indian dances are not pleasure dances. Neither are they competitive. There is none of the negro cake-walk idea connected with them, nor the Italian peasant's carnival where rivals dance to gain the applause of the village. There are no examinations to see how well one can dance. Every one is expected to know how to dance from the earliest years of childhood.

During these dances at Tuba, gifts of corn, squash, melons, flour, cloth of native texture, loaves of unleavened bread were brought and given with accompanying prayers to Mootchka, the leader. Then, at certain times, these were thrown among the Hopi and Navaho spectators and eagerly caught, for not only were the articles themselves to be desired, but there accompanied them the prayers of the original donors which in some subtle manner were supposed to bring good fortune to the final recipients. The next day the Navahos had their turn. The two leading chiefs selected a suitable site, and, taking a rooster, buried it up to the neck in sand. The running course was soon cleared, and a half mile of excited Indians on horseback lined up on either side. Horseflesh of all kinds known to the Indians from fleet wiry steeds that had won many a prize, to broken down cayuses fit only for the boneyard were to be seen. And the riders were decked in all the gorgeousness they could afford. Silk bandas were around the jet black masses of hair; calico of all the colors of the rainbow were made into garments, here and there overshadowed by the more resplendent glories of a beautifully woven and exquisitely patterned blanket, for which the Navaho Indian women are famous throughout the world; around the waist of many of the men were leathern belts to which were attached large silver disks worked by native silversmiths, and rings, bracelets, necklaces and earrings of similar work abounded.

The competitors were soon gathered together at one end of the course. The chiefs stated the conditions upon which the prizes must be won, and a signal was given.

Like a shot a rider darted out from the mass toward the tiny head of the buried rooster, stooping over from the saddle as he neared the bird, with fingers of the right hand extended, the left hand holding bridle and clutching the horse's mane. With a sweep as sudden as it was delicate he tried to catch the rooster's head between his extended fingers. He failed, but dashed on, for another horse and rider were at his heels, and another and another; the string seemed endless.

Now and again one would touch the bird, or would actually catch the head, but the body was too securely buried to be pulled out easily. Cheers would ascend as the riders showed approximate success. Sometimes a horse would shy and the white visitor looked for nothing less than a broken neck for his rider. But laughing and shouting the athletic and careless Indian swung himself into the saddle and in a few rough jerks taught the unruly animal to recognize a master. Of course long before this time in the fun the rooster was dead, for at the first strong clutch his neck was broken, so that there is no unnecessary torture, although I am free to confess I do not think that a matter to which the Indian has given either thought or consideration. The stream of riders flows on, and at last one lucky fellow gives the right kind of a pull and out comes the rooster, to be swung around his head with a fierce yell of triumph.

Now the real sport begins. With a shout that only Indian lungs can produce, every rider darts after the possessor of the rooster, and for an hour, more or less, it is a question of hard riding, dodging, evading, whirling to and fro. Over the sand hills they go, pursued and pursuers, yelling and shouting like

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PLUCKING THE ROOSTER.

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demons. The victor's horse seems to know all about the sport. He watches and dodges and doubles like a hunted hare. Now a stalwart ruffian has caught the rooster carrier and hangs on like grim death, while he is beaten over head and breast and shoulders with the rooster as a weapon. Others join in. Surely someone will get hurt. Watch the horses! They nip and pinch each other and squeal with pain and anger. Ah! the winner still keeps his prize. Again he is caught, and this time it seems as if he must succumb. But his horse helps him out and, by clinging desperately to the horn of the saddle and his horse's mane, he wrests himself away from his pursuer, aided by the shying of the pursuing horse which is kicked and bitten by his own animal. But where is the pursuer? His horse is dashing riderless away. Is he trampled to death in that swirling, sandy conflict? No! He is hanging on to the man with the rooster, belabored the while with the now bloody and dilapidated bird. Regardless of this he hangs on, although the horse is bounding along at great speed and a hundred or more are following, all yelling and encouraging him not to let go. With a superb effort he swings himself onto the horse behind the saddle, and with a second sudden move grabs the rooster and wrests half of it out of the original victor's hands. Seeing a chance to escape he drops upon the sand, picks himself up unhurt, is soon seated upon a new horse and now he becomes the pursued, and two bands, instead of one, of howling, raving, shouting demons occupy the attention.

And thus the struggle goes on, good-naturedly, yet with a fierceness of energy that is exhausting in its wild excitement; exhausting to the onlooker as well as the participant. When the unlucky bird is all dismembered and the racers smeared from head to heels with blood and it seems impossible to divide the pieces any smaller, and not till then, the conflict ceases.

But for superb riding watch nearly two thousand of these sons of the desert as they train their young men and boys in daring control of their horses. The greatest chief of the Navahos is a good friend of mine, and it was owing to his kind invitation that I was privileged to see this never-to-be-forgotten sight. He commanded the "regiment"—shall I call it?—riding alongside at times and again standing where he could signal his demands and note the result.

Let us stand with him. These riders are about to dash past. Just before they reach us a signal is given, and every rider, in an instant, disappears over the side of his mount while the horses continue running under perfect control. Simultaneously every Indian reappears upon his saddle, sits about as long as one might count three and then slides over to our side of his horse, fully in our sight, holding on by stirrup and mane, but completely hidden from one who might be looking from the other side.

Pacoda was delighted in his dignified quiet way as I burst out into warm encomiums and told me I should soon see "some more" riding. Again the horsemen dashed past. This time I watched for their disappearing and saw where and how they went, but I was scarcely prepared to see many of them peeping at me from under the bellies of their animals. This was done several times, then Pacoda gave me another treat. The riders came towards us. At a sign every man sprang from his horse to the ground, to our left, gave three or four wild jumps, sprang completely over the saddle to the other side of his horse, where he gave more jumps, and then with a yell of joyful triumph landed into his saddle, the horse, the while, keeping up his speed.

But to see the whole party ride furiously away from us, nothing but black hair, sturdy backs, horses' tails and hindquarters with galloping feet presented and then, in the twinkling of an eye it almost seemed, to have the same party dashing towards you, was a feat in horsemanship which impressed me most profoundly.

And it is not to be wondered at that the Navaho is an expert horseman. He is as near born on horseback, literally, as he can be, for on several occasions I have ridden with Navaho friends, among whom was an expectant mother, have stopped half an hour for the birth, and then with the new-born babe strapped on the mother's back have resumed the trip, completing, perhaps, forty or fifty miles in the day. Children born under such conditions could not fail to be skilful horsemen.

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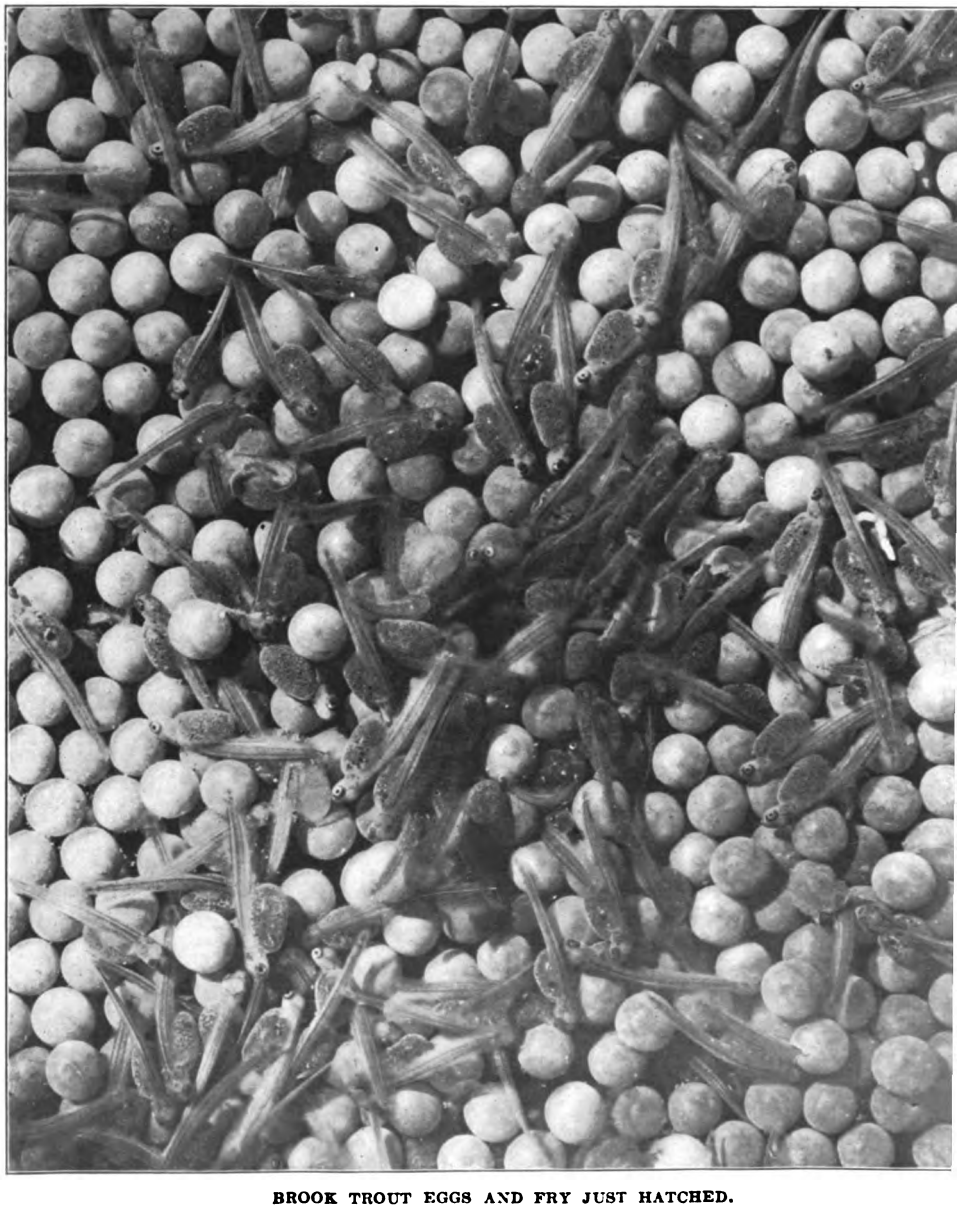
BROOK TROUT FRY AND FINGERLINGS

By A. Nelson Cheney

WHEN the science of artificial fish propagation arrived at the degree of perfection that ninety-five per cent. of trout eggs, spawned and impregnated in an earthen pan, hatched young fish, man believed it a great improvement upon nature's methods, though little or nothing was known of the percentage of young fish obtained under natural conditions. This, however was established by subsequent investigation



BROOK TROUT EGGS AND FRY JUST HATCHED.

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through an actual count of some salmon eggs deposited naturally by the fish in a Canadian salmon river, that showed but two per cent. of them impregnated. For more than one hundred years after the first trout were hatched artificially in Germany, fish culture was confined to hatching trout fry and to planting them as fry. Then another but minor revolution occurred in this particular field and trout fry were reared in the hatcheries to the stage now called fingerling fish. While this was a stride in advance, it was not so marked as the hatching of fry in the little troughs of Stephen Ludwig Jacobi in 1741 at Varenholtz. However, when it was demonstrated that fish could be successfully reared in the hatching troughs or rearing races to eight, ten and twelve months of age, the fry so gladly welcomed in other years became a drug in fish culture, almost despised for public planting. The popular demand was for fingerling or yearling trout, because, it was claimed justly, greater results were obtained from planting the larger fish, which were subject to fewer casualties than the baby fry.

Let us look into the development of a brook trout from the egg to babyhood, first under natural conditions and then in a hatchery. It is in the autumn that a livelier crimson comes upon the sides of the male brook trout to indicate that the mating season has arrived, and the more quietly colored female makes her way to some point where the current ripples over the graveled bottom of the stream which constitutes the home of the pair. Sand may have lodged amongst the pebbles or drift may have covered them, but the female trout hangs motionless in the water, head upstream, the fins only fanning gently, over some particular spot that she has selected, until suddenly, quicker than the eyes can follow the details of the movement, she partly turns on her side, makes a flirt with her tail, and then rights herself, while a small cloud of sand passes down stream behind her. This motion is repeated again and again, and the spot grows brighter and larger, circular in form, until a saucer-like depression is made with the larger pebbles paving it from center to circumference. During her labors of preparing the bed that will later receive her eggs, she has not been without offers of assistance, for the more gaudy-hued male trout have hovered about and occasionally entered the depression in the gravel, to be unceremoniously dispossessed after a charge that appears to be viciously vigorous. Often the female will seize the male in her mouth and give him as near a shaking as one fish can give another, or nip him fore and aft to express her disapproval of his presence at that juncture.

The males, too, fight among themselves for the favor of a female, but when the spawning bed is fully prepared the favored male takes his place beside the female, and together they quietly fan the water with their fins, until the time comes when, with a tremulous motion of body and fins extending from head to tail, the female expresses from her ovaries her amber-colored eggs, while the male fish extrudes the milt necessary to impregnate them. During the operation of spawning the pair may turn on their sides or rise into an almost erect position, but the result is the same whatever the positions they assume. The eggs are heavy and non-adhesive, and sink to the bottom of the depression, called the spawning bed, and such of them as come in contact with the particles of which the milt is made up are vivified. The current may be strong enough to carry away some of the milt before the eggs touch it, or for other reasons the contact may be very imperfect, although the depression in the gravel acts after the manner of an eddy in the water after eggs and milt drop below its edges, and it is because of this uncertainty that impregnation of the eggs is imperfect and the percentage low in natural impregnation.

The eggs being deposited in the gravel, fertilized and unfertilized alike are covered over by the fish and left for nature to work its will. Trout spawn from October to January and even later in some waters, and after one pair of trout have selected a spawning place, prepared a bed and deposited eggs, an operation which may take several days to complete, another pair, spawning later, may select the same place and uncover the eggs in preparing a new bed. The newcomers may eat the eggs of their predecessors before the female is ready to deposit her own ova, but should the original bed remain unmolested by other trout, eels may burrow into the gravel of the bed and destroy the eggs; insect larvæ may feed upon them; drouth may come and the water recede, uncovering them and exposing them to frost and destruction; floods may visit the stream, bringing down

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mud and dirt, covering the beds and burying the eggs beyond hope of hatching at the appointed time; fungus, a parasite always to be dreaded at all stages of fish life, may appear and destroy them, and other casualties may occur to reduce if not to obliterate the entire deposit of eggs. The impregnated eggs that escape the various enemies and adverse conditions always contending against them may hatch in forty-five days, or they may not hatch for one hundred and fifty days, depending entirely upon the temperature of the water—the colder the water the longer it takes to hatch the eggs. When the embryo trout has broken the shell of the egg, and emerges from this envelope that has confined it coiled up, it has a yolk sac nearly as large as the fish itself, and upon this sac it feeds by absorption for from thirty to forty or more days; the time again depending upon the temperature of the water—the colder the water the longer it takes to absorb the sac.

This sac practically anchors the baby trout to the bottom of the stream, though it does make spasmodic efforts to swim a few days after it has been hatched. Usually the little fish cluster behind some stone or obstruction in the bottom of the stream, which breaks the force of the water and creates an eddy below. During the time that the little trout or fry are growing, nourished by absorbing the sac, they are practically helpless and a prey to everything in the water; larger fish, water snakes, insect larvæ, ducks, kingfishers, frogs, and an army of finned, winged and furred enemies, until it is a wonder any are left to grow to fingerling fish. So much in brief for nature's method in hatching trout fry.

In propagating trout by artificial means, the time is the same naturally, but the place is different, and the manner will hereafter be shown as briefly as in the case of nature's methods.

The stock fish are confined in ponds, and there may or may not be spawning races leading into the ponds. At one time it was considered best to provide such races, but it is no longer considered absolutely necessary. If spawning races are used a bag net is fixed at the lower end of the race, after the fish have entered, and by lifting the covers of the race the fish are driven down into the bag, the extreme end of which is tied with a string. The bag is lifted over the tub, the string untied and the fish slide into the tub. The spawning races are merely shallow boxes, covered, and with gravel at the bottom, through which the water flows to supply the pond containing the fish. As the fish are seized with the breeding instinct, they make their way into the races and fan the gravel as in the case of wild fish in wild waters. This serves only as a signal to the fish breeder that the fish are about to spawn, and he thereafter directs the spawning operations, believing for once, at least, that man's methods are superior to those of Dame Nature, in some of the details as practiced in the hatchery, of reproducing members of a class of the animal kingdom; and of these details it is surprising so many people, interested generally in fishery matters, are so ignorant, which is sufficient reason for dwelling upon them here. The trout in a hatchery pond, having by their actions given evidence that they are ready to spawn, are netted and placed in tubs filled with water by the side of the pond, and the spawn taken in shallow tin pans. It is not necessary to separate the fish, the males in one tub and the females in another, even if some of the books so direct, as I believe they do. In taking eggs by the dry process—the discovery of Vrasski, a Russian fish breeder, though credited at about the same time to an American, who very frankly declares that he simply read of Vrasski's method in a French journal and practiced it—the pans are dipped in water and the water poured from them, leaving them moist and free of dust. A female trout is taken from the tub and held over the pan. Then slide the hand down the abdomen above the ovaries with a gentle pressure, at the same time bending the body of the fish, and if the eggs are ripe they will flow freely. No force should be used. If the eggs do not come under gentle pressure, put the fish back and try another. When the eggs of two or three females have been secured, take a male fish and expel the milt in a similar manner, but the pressure should be applied lower down, nearer to the vent. In comparison to the bulk of eggs, little milt will be secured from a male trout, though it will be sufficient to impregnate the eggs of several females. A skilful operator will readily distinguish the sex of the fish; the males are generally slim-bellied and of a higher color than the females, and, too, a skilful operator will distinguish a ripe from an unripe fish from the touch, as the ovaries of the latter

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are harder or more unyielding than the former. The eggs when they first come from the fish are soft because of an outer coating or envelope, and they stick to everything and one another owing to an absorbing process through the orifice or micropyle in the envelope. Placed in water alone the egg would absorb water only and fail of impregnation even though milt were afterwards added.

The milt is composed of infinitesimal spermatic particles, and when it is added to the pan of eggs one of the zoösperms finds the orifice during the absorbing process and impregnation takes place. Milt placed in a bottle remains active for several days; when it touches the water it dies in two minutes, and yet when the milt has been added to the pan of eggs a little water is then added to both to make the zoösperms more active and the pan is tilted from side to side that the eggs may draw in not only water which plumps them but a spermatic particle as well. During the absorbing process when the eggs are "set" by sticking to one another and to the pan, the eggs may be impregnated, but not after absorption ceases, for then no power can fertilize the eggs if a zoösperm has not found a micropyle. After tilting the pan to aid impregnation more water is added and the pan of eggs is placed apart to separate, and this takes a longer or shorter time, depending upon the temperature of the water, say, from ten minutes to half an hour, separation meaning that absorption has ceased and the eggs are free from one another. The eggs are then washed thoroughly, for an excess of milt which will sour may cause fungus, and are ready to be placed on the trays in the hatching trough. In this, the dry process, one hundred per cent. of eggs can be impregnated, if the eggs are all perfect, and it is common to impregnate ninety-five per cent. In the wet process, practiced before Vrasski made his discovery, the method was the same as the dry except that the pan was first filled half full of water. By the wet process fifty or sixty per cent. of the eggs taken were impregnated.

With the eggs placed on the trays and running water provided in the hatchery troughs, man is second to nature in their development. The dead eggs must be removed, fungus guarded against, and care exercised that no sediment covers them. The living enemies of trout eggs are not to be feared if the troughs are covered so that they find no entrance. The eggs may hatch in forty-five days, or they may require more than one hundred days. (In Canada salmon eggs have been 210 days in hatching, the time being dependent upon the temperature of the water, as already stated in the case of eggs deposited naturally.) The young trout, with umbilical sac attached, is called an alevin, if one wishes to be very precise and distinguish this stage from the next, when the sac is absorbed and the little fish becomes trout fry. During this period the alevin is sustained by absorbing the yolk sac, but before it is entirely absorbed it begins to feed through the mouth, and if the fish are to be planted in wild waters as fry, this is the time to make the plant that the fry may early become accustomed to their new home and the food it contains. The fish are very hardy at this period and bear transportation well. As alevins the little trout gather in masses in their endeavors to hide or get under cover, and if the construction of the troughs would permit of it many would smother; but as the crowding is chiefly to avoid the light, the boxes or troughs are covered to exclude it, and cause the little fish to separate.

It matters little whether the fry which are to be reared to fingerlings are fed in boxes in the trough(the difference between a box and a tray in the trough is that the mesh of the wire bottom of the box is finer and the sides and ends are higher), or in the trough itself, or in specially constructed rearing boxes in the hatchery, which are as long as the troughs, wider and deeper with gravel bottoms, for eventually the fingerlings will or should all go into rearing races or ponds outside the hatchery. As the fry begin to feed they turn their heads upstream against the current and are more evenly distributed through the water. If they nibble the tails of one another fungus will appear and salt is put into the trough at its head as a remedy. Fry are fed five or six times each day on ground beef's liver diluted with water to the consistency of cream, and the object is to give the little fish all they will eat without leaving a surplus of food to foul the box or trough and thus be the cause of fatal disease. As they grow they are fed less often and the liver is no longer diluted, but given to them as it comes from the grinding machine; overfeeding is always to be guarded against, no matter what the age of the fish.

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A "fingerling" trout is planted when it is about eight months old, and it may be two and a half inches in length or it may measure six inches. Trout at six months of age have measured six and a half inches in length, but this is exceptional. Of a lot of trout hatched at the same time from a tray of eggs taken all on the same day, some will grow much faster than others, the strong active fish receiving the greater amount of food and crowding the weaklings on one side, for it is abundance of food which makes size in trout. It is the unequal growth which causes the fish breeder to sort his young fish into ponds of large, medium and small fish of same size. There are two reasons for this: If not sorted, the larger trout would eat the smaller, and after being separated the smaller ones grow much more rapidly. If the trout are sorted at six months of age the smaller fish may be grown so rapidly by proper feeding to almost equal the size of the larger trout when both have arrived at the yearling stage, so it is of the utmost importance that young trout have every attention paid to their food and feeding if they are to be grown to large fingerlings.

It has been noted in this paper that the modern demand in public and private fish establishments is for fingerling or yearling fish and that fry are no longer held in esteem, as formerly, for planting, and while it is true that better results may be obtained from planting the larger fish, there is a misconception in the public mind in regard to the relative value of the two sizes of fish. Fry are planted in the spring when about an inch long and just before or just after the yolk sac is absorbed, and fingerlings are planted in October or November when four or five inches long after being carried through the fry period in the hatchery, the season of warmer water and the season of infant mortality, so that both are planted under favorable water conditions and of necessity the fingerlings are of greater value than fry in the streams planted, but nine times out of ten, if left to the average applicant the fry and fingerlings are both improperly planted. Yes, in the case of fry they are improperly planted ninety-nine times out of one hundred and that is a high estimate of rational planting. The Hudson River was stocked with salmon (*Salar*) fry alone, with the result that over three hundred adult salmon were taken (illegally) in the shad-nets in one season. The salmon fry were planted in small streams at the headwaters and there remained for two years before going down to sea as smolts (fingerling salmon) and in two years more the adult fish returned weighing from nine to fifteen pounds each, having been subjected to all the dangers to fish life in fresh and salt water; it is folly therefore to say that good results cannot be obtained from planting the fry of *Salmonidæ*.

To be properly planted, fry must be taken to the headwater rivulets tributary to the stream it is wished to stock, and there they must be thinly distributed so that the food supply will not be at once exhausted, as would be the case if the little fish were bunched in one place. In the rivulets the baby trout are removed, comparatively, from the enemies which would prey upon them in larger waters, and if planted sparingly over a considerable distance all will find sufficient food to sustain them until they grow and drop down to fresh pasturage. Trout need food as much as a cow, a horse, or a man, and will not thrive in its absence. Trout do not live on water any more than man lives on air.

The public hatcheries cannot, for lack of water, rear to the fingerling stage all the fry they can hatch. Fifty gallons per minute of water below a temperature of 60° Fahr. will carry 100,000 trout to the age of four months, but from six months of age to a year the same number of fish should have 200 gallons of water per minute, and it will be readily seen that some portion, and a large portion at that, of the annual output of the hatcheries must be planted as fry, but in planting artificially hatched fry there is a distinct gain over nature of ninety per cent. in the number of fry hatched. No one can tell the per cent. of fry that survive and grow to the fingerling stage in a wild state, but in a hatchery eighty-three per cent. of a certain lot of fry were reared to yearlings. On the other hand, in distributing fingerlings, a public hatchery will ordinarily grant an applicant 1,000, but if the same applicant should ask for fry he would probably get 10,000, and 10,000 trout fry properly planted will produce better results than 1,000 fingerlings improperly planted. If fry and fingerlings are both properly planted there is no doubt that to produce the same result many more fry than fingerlings must be used, but in either case much depends upon the manner in which the fish are planted.

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WOODCOCK SHOOTING ON MISSISSIPPI ISLANDS

By H. S. Canfield

IN the center of the rushing and glassy current rises a sand formation a half mile long by a quarter mile broad. Much of its surface is taken up with a growth of willows so dense that a rabbit may scarcely worm his way between the slender trunks. The pendant strings of the branches make an impenetrable shade. Little air stirs under them. The ground is soft, yielding and glutinous, and contains a thousand forms of larvæ. It reminds one of Kipling's "slushy squdgy creek." Strange little things, habitual to the damp undergrowth, run to and fro. One of them is the moccasin, and if stepped upon he resents it so quickly that his fangs are blunted upon the leather leggings before the hunter knows that he has been attacked. Always there is a soft whisper of breeze in the intertwined foliage, and by listening intently one may hear above it the murmurous singsong of the river. Distinctly these willow growths on a September day, when the thermometer marks a hundred and fifteen degrees of sun, are a warm proposition. A man may shoulder his way through them for the most part, since they are yielding, but this involves labor, and labor means much sweat and possible profanity. The woodcock loves them and affects them before his long swinging southward journey begins, because they give him the dark that he loves, some measure of protection from his many enemies and food of a certain kind without the trouble of going far from his day-house to get it.

The birds breed along the upper Mississippi and further north, making their nests in secluded places and carefully tending their young. The maternal instinct is developed to a quite remarkable extent. The mother has not the gallinaceous faculty of imitating a broken wing when danger threatens, but she has a hundred ways of hiding them and protecting them unknown to the birds of that family; and, if given a little time, she will get some of them upon her back and transport them to a safer region, returning for the others immediately. Her strength of flight and this manner of carrying her young led to [illegible] superstition, once common to hunters and naturalists alike, that the woodcock bred in Europe and transported her young to this country across ocean. The loon, a bird common to these waters, also totes its little ones in the same fashion, but the wood-duck carries hers in her bill. It was once my privilege to see a wood-duck and a woodcock in parallel flight across a river slough. The woodcock was making brave progress of it with a brace of little ones securely squatted just below her shoulders, while the duck had, of course, but one in her bill. I am inclined to think that the former bird never lugs its young a greater distance than one hundred yards in this manner, but it is not uncommon to the wood-duck to build a half mile from the stream and carry her young, one at a time, to and fro while giving them their first knowledge of the generous water and how to make a living on it.

In early autumn, however, the woodcock young have given up the motherly care. They are amply able to fly and forage for themselves. Even by the middle of August the later broods are full grown and, while there are individual differences of strength, speed, and cunning, due to age and experience, they are all fast and corkscrewy enough to make it interesting for the sportsman. The females, however, are always swifter than the males, more wary and harder to hit. They are, in fact, considerably larger, in this way differing from almost all other feathered and unfeathered things. There are many shotgun men who contend that the woodcock is normally the most difficult of our flying targets, but this may be disputed. It is not so fast as the jacksnipe or the quail, nor is its flight so erratic as that of the snipe, if it be given room to fly in. The difficulty of the shooting is due most largely to the habitat. In daytime the woodcock is found only in the thickest of tangles, as a rule, and it is the huge interlaced growth which makes it a buzzing, darting, twisting, hurrying thing of aggravation, not its natural capabilities. Occasionally, when the nights are cool and the days are warm and sunshiny, they are flushed along the lower edges of ridges where only small thin timber is

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growing. In these places even an ordinary shot ought to bag two out of five and an expert will do much better.

On a Mississippi island, however, he who gets his woodcock in hand earns it. It is as impossible for the bird to fly through the branches as it is for a man to do a hundred yards in twelve seconds through them. It has but one way in which to get clear of the growth which impedes its progress and that is to go straight upward. This it does in nineteen cases out of twenty and killing them becomes in a little while more of a knack than genuine skill. The amateur of experience in other fields, knowing that it is a fast rising shot, will naturally endeavor to hold over. He has been doing this with bounding quail, with up-springing grouse, with the acrobatic pin-tail. It will not do with the island woodcock. That ingenious night-feeder gets upward too fast and has a wide corkscrew weave on him that will puzzle the best eye that ever looked over the twin barrels. Straight toward the sky he goes for forty or fifty feet, hangs for an instant, then darts more swiftly downward, pitching probably upon some spot not more than thirty yards from his starting point. The time to shoot is the time when the flyer hangs poised. It occupies not more than the tenth part of a second, if so long, but in that moment he is motionless and the cloud of No. 10's should catch him. Of course, for a satisfactory performance a man will want a cylinder bored gun of not larger mouth than 16-gauge and very light. No great distance is involved at any time and the charges will be moderate. If the gun be of an accentuated "brush" boring and makes a correspondingly wide pattern, so much the better. Perfectly armed, feeling in shooting trim, in good practice and of fair skill, the hunter ought to get two of the willow birds out of five, If he averages three out of five he is entitled to find him a lodge in some vast wilderness and there, far from the madding crowd's ignoble disbelief, shake hands with himself hard and long.

There are just two ways in which the woodcock is to be obtained in the daylight of late August. The hunter may put a cold luncheon in his pocket, row to an island after breakfast, and proceed doggedly to force his way through the growth, trusting to luck and his knowledge of the land; or he may own a well-trained cocker spaniel, and let the bird dog do the rustling while he takes his time about it. With the dog there will be ten birds flushed for each one shot at. Often the cock will rise within fifteen feet, and not a glimpse of him be had. The man hears the wing-flutter, and knows that his prey is in the air, but that is all the fun he gets. It is true, however, that with the dog almost all killed birds will be retrieved, whereas, without the keen nose of the little assistant, one will need to be skilled in marking to get his dead quarry by hand. Hunting alone, with no aid except that of the 16-gauge, the man will have the satisfaction of knowing that he is doing the sportsmanlike thing. He is pitting his trained intelligence against the inherited intelligence of the bird, and such braces as he gets will be the more valuable to him on that account—or they ought to be. Of course, a stranger to the island will bag birds only by blundering upon them, but it should not take long for anyone to get the lay of the land, and he is then sure of reasonably good shooting on any day between the first of September, when the open season begins, and the time of the southward migration, which sets in early in October, sometimes before.

Here and there on the island are open spaces which show probably clumps of solitary willows in their centers, with the other woods standing in a circle about them. Nearly always in a clump, or a little to one side of it, will be a little seeped spring coming in some mysterious way from the river around it, but colder than the river water, and clearer because of its filtration. The ground about it, because of the many droppings of birds through the years, will be richer and blacker and of a more loamy cast. It will show, even to the casual eye, numerous small borings, looking much as if some idler had stuck a lead pencil into it here and there. In that clump of willows, or on its edge, the woodcock will be lying. A soft footfall will not disturb him, and he will be inapt to notice the approach of his destroyer unless the sun be behind the hunter and his long shadow fall upon the bird while it is lazily sucking the mud for worms. When it rises it is as likely as not to go straight over the clump and pitch upon the farther side of it, to be flushed again if missed. It may, however, swing around the clump to left or right and fly for the encircling woods. In any case it offers a most tempting snap shot, and the

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man who misses it has only himself to blame. On an island of a thousand acres—and many of them are larger—the sportsman who knows the ground ought to be able to flush twenty to thirty woodcock on a morning's tramp, for there will be not less than fifty of these damp places, with rank, rough grass growing about them and the little pool of seepage in the middle. As a matter of convenience this form of shooting beats breaking the way through the willow growths to death, and it will bring as many birds. It is possible to travel in any direction on these islands without special trouble, because of the hog-paths which cross, but ambling along a beaten path, while comparatively swift and surely pleasing, does not get the beautiful brown-feathered, gamey-looking bodies into the pockets of the canvas coat.

One form of the island shooting of woodcock, however, is interesting to the highest degree, calls for a supremity of skill, and involves no special exertion. Leaving camp upon the mainland, when the sun is a half-hour above the western horizon, the man with gun enters one of the short narrow skiffs common to the river, and pulls across to the island which faces his sleeping place. Probably the "slough" which surrounds it will be not more than four hundred yards wide and of a sluggish current. He lands and pulls his little craft far enough up to make it safe, then plunges into the undergrowth or takes a path running straight across. He knows that not more than a quarter of a mile farther on he will find a "lake," or still pond, covering possibly fifty acres. Each of the islands has one, and the size of it depends generally upon the island's size. Tall grass grows near it, and between the grass and the water runs a strip of flat blackish ground, oozy and clinging. This ground, too, seems to have been prodded with lead pencils, for the woodcock feed on it at night and all night long, making plumper their plump breasts and talking to each other in muffled staccato clucks. They cannot do other than cluck, because, for some inscrutable reason, the moment they start to utter a louder noise their tails fly up, their long bills drop into the mud and that stops the performance. The flight of the bird from covert to night feeding ground is made between sunset and dark, just in that twilight when things seen are dim and elusive. The man, standing with his back to the encircling woods, waits. Suddenly there is a swishing in the air and over him, making for the edge of the lake, darts a small black ball that is on business. He prefers to take his target going from him, and if he holds straight he will see it whirl over and over in descent until it strikes the water with a tiny splash, and the little ripples circle away in darkness. The bird was not less than a hundred feet high and it may have been a hundred and fifty. It was traveling at a rate of a hundred miles an hour, with a wide weave to it. If it was killed dead the shooter has some cause for self praise. It would be difficult work at best—far more difficult than pass teal shooting—but in the uncertain light a sportsman's eye and a sportsman's unfailing intuition of speed and distance are necessary to even a moderate success.

There are evenings on the islands when it is permitted to one favored by the gods to expend fifty shells in this manner. There are other evenings when only an occasional shot rewards the weary watcher. In any case, however, the game is more than worth the candle. There has never been in the Mississippi part of the country a man able to make a better average than three out of ten at this form of woodcock shooting, and the chances are that there never will be. A zigzag sphere, black and dim, hurtling through space, and so high that it seems beyond the reach of shot offers far more of difficulty, and therefore far more of temptation to the true sportsman, than any sort of clay pigeon, however strong the trap, or any kind of field shooting whatever. It is certain that the birds come in for the better part of the night, busily eating while the stars are shining, and if one arises early enough he may catch them returning to rest just when the gray bars show in the east. Light shooting in the evening, however, is never more than a half-hour long, and he may count himself a reasonably lucky person who gets into his little boat and pulls slowly back across the slough with his pipe between his teeth, his retriever squatted in the stern and a half dozen of the big-eyed fliers in his pocket.

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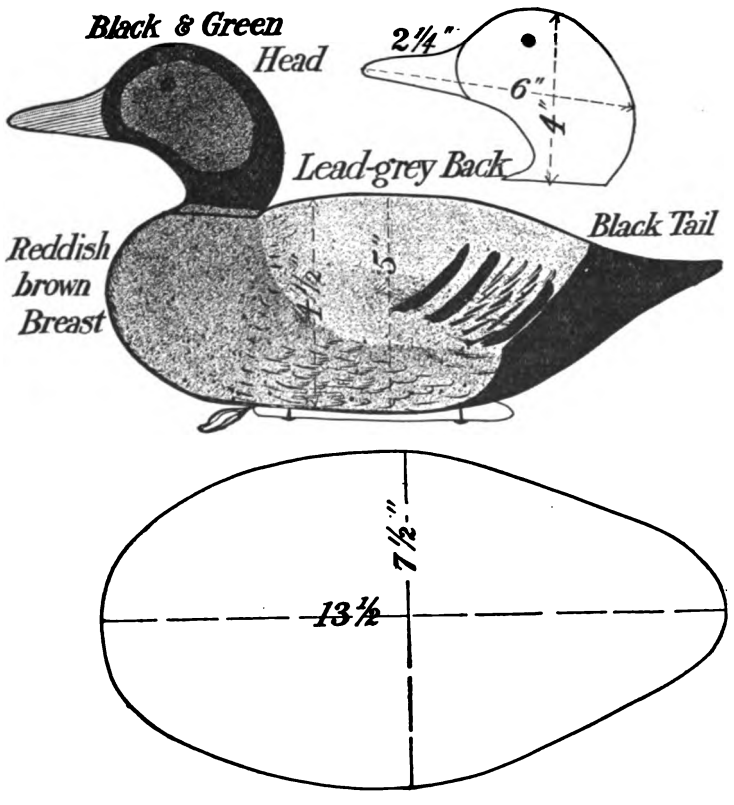
DUCK DECOYS

HOW TO MAKE THEM—HOW TO SET THEM OUT

By A. G. Holmes

WHEN and where decoys were first made and used for wild fowl shooting I am unable to state, but I believe from what I have been able to learn that the first decoys were made and used on the Potomac River and Chesapeake Bay about sixty years ago. That the first decoys were crude goes without saying. I have before me now a decoy made over thirty years ago by an old Frenchman who came from Canada in the early seventies and brought his decoy ducks with him, and this decoy is an oddity, resembling a mudhen far more than a duck, but was made for "de dawk," as Old Pete Salvas says. Decoys as we get them from the shops are dreams in paint, putty and cheap work, but when used to lure ducks into shooting distance turn out most likely to be an awful nightmare. A decoy and the duck it represents are the same size laid side by side, out of water; but entirely different in the water. The duck in life sits high upon the water while the solid wooden decoy with its keel on sits down into the water nearly two-thirds of the whole body. To overcome this difference decoys should be made nearly again as large as the duck they are to represent or at least one-half larger and hollowed so they will sit high upon the water.

If one will take time to make his own decoys or have a carpenter make them, he will be money ahead, and will notice an increase in the number of scores he has shooting over these extra large decoys. He will be able to use few decoys and at the same time have a flock of birds that will show up farther and better than twice the number of the factory-made ones. I have eighteen of these large decoys and they are all I can carry in my big canoe, though I used to carry from thirty to forty factory-size decoys in this same boat. But the large decoys are hollowed and weigh no more than a regular small factory decoy which is solid. Ducks will alight among the big decoys—if you allow them—when they would go right past the ordinary decoy, and when they do alight it is exceedingly difficult to tell the real ducks and the big decoys apart. It is easy to tell a duck among a flock of factory decoys.



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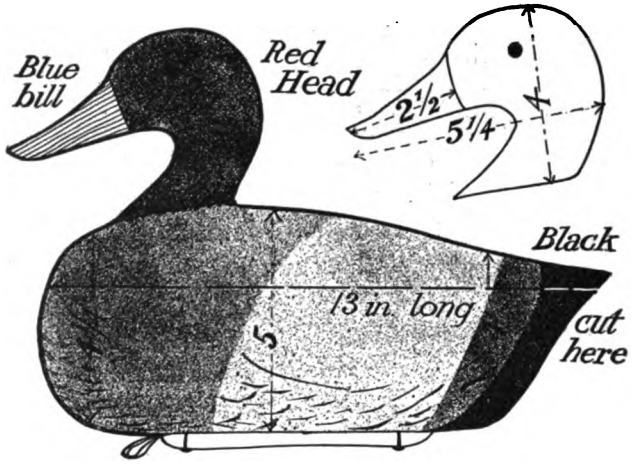

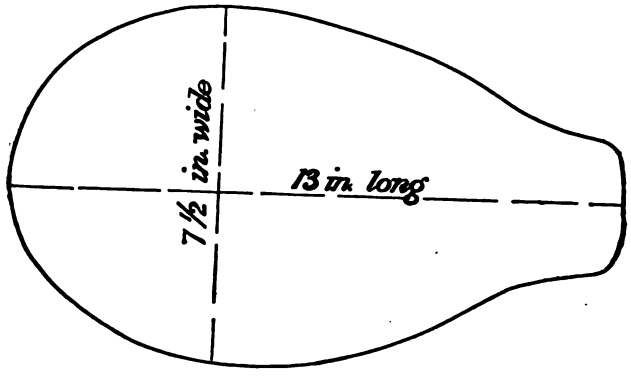

For the open where you are shooting deep water ducks, such as canvasbacks, redheads, bluebills, whistlers, broadbills, shelldrakes, butterballs, and all other open water ducks—three kinds of decoys will answer—canvasbacks, redheads, and bluebills. For all shoal water ducks such as mallard, teal, black duck, pintail, gray ducks, widgeon, etc.—a flock of mallard decoys answers.

For deep water duck about four canvasback, four redheads and ten bluebills in a flock of eighteen decoys make a good combination. Have as many bluebills as redhead and canvas backs combined and a couple extra. The canvasbacks and redheads should be drakes as the bluebill flock will be mostly dark birds.

The first thing needed is a good cedar post fifteen feet long and twelve inches at the butt; clear and solid. Have this post cut into twelve blocks fourteen inches long. With a good sharp hatchet, cut your block down until it is about six inches thick, then place it in a vise and with a drawshave cut down the other two sides until it is about nine inches across. Select the clearest side for the bottom of your decoy, being careful it has no checks; cut your bottom edges slightly rounding and leave the bottom flat. Thus the blocks are ready in the rough. Now let us make a canvasback for which the largest blocks should be reserved. Follow the lines of the canvasback decoy here printed and cut your block in this shape. Thirteen and a half inches long, eight inches wide, and five and a quarter inches high from top of back to bottom.

Measure back from the bottom end for the tail two inches and a half on the lower side, and cut up so as to come out just under the tail and about one-half an inch. Now round off the breast all around and also round off sides a little and the back so as to leave it higher just behind the head, cutting down towards the tail.

To make the head get a white pine board an inch and a half thick and follow the drawing given. Cut your board four and a half inches high and five and three-quarters inches wide from tip of bill to back of head. This will leave one-fourth of an inch on top and ends to trim down. Make the head as shown for your canvasback, and see that the head is modeled slightly pointing down. The canvasback bill should be narrower than either the redhead or bluebill.

Cut in the bill about one-sixteenth of an inch where it joins the head and then smooth off the head until it is about one and three-eighth inches thick. Brass tacks such as used by furniture dealers make good eyes. The head being ready, bore hole one-fourth or three-eighths of an inch down through the head and neck into the body of the decoy, through which to drive a hardwood pin to fasten it to the body and prevent the head breaking off.

Now comes the fine part of your work,

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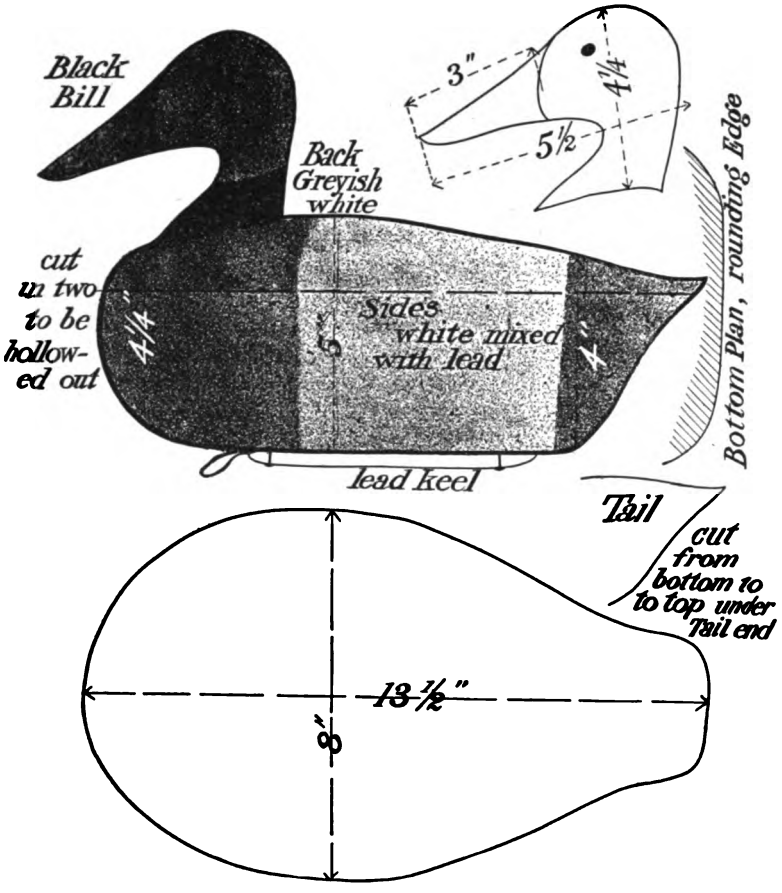

Saw straight through your decoy the long way, commencing at the breast about an inch down from the back and coming out just under the tail. Lay this piece on one side so it will not get broken or marred. Take an auger with an inch bit and bore around the sides and body of your decoy about one and a half to two inches deep, being careful not to get too near the edges; about an inch from both sides and an inch and a half on the breast end and about three inches from the tail end are about the proper distances. All this boring is done from the upper side and will be covered by the portion of the body we have just sawed off. Gouge out carefully so as not to harm the ends, until the body is well hollowed, then cover the edges with white lead thickly as well as the edges of the top board and then tack the latter on with wire brads about two and a half inches long. See that you get this on well, as it must be a water-tight joint. Having put on the back put the head in place and drive in the hardwood pin (after coating it well with white lead) clear through the head and down into the body of the decoy about an inch. Cut off the top piece of the pin flush with the top of the head, and by way of precaution drive a couple of wire brads into the back of the head down into the body of the decoy so that the head may be positively solid.

Your decoy is now ready for painting. Give it a good coat of white lead and white paint mixed, all over the body, and let it dry in well. Paint the bill black. The breast for about four and one-half inches and the lower edge of the neck and the tail tip back about three inches should be painted black. Between the tail and breast paint a light gray or dirty white. Paint the upper part of the head a dark reddish brown, running down into black on the lower neck. This is for your drake canvasback.

Paint your redheads the same as your canvasback, excepting that the head should be brighter red. The redhead bill should be blue two and one-half inches long and slightly concaved. The bluebill should be painted black head and blue bill with black body and a little dirty white on sides and little white dots on back. The bodies of the bluebill and redheads should be half an inch shorter and half an inch narrower than the canvasback.

The females of all three can be painted a dark brown or black with just a little bar of white on the edge of wing. Put on the lead keel when the decoys have dried

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sufficiently, and be sure it is heavy enough to keep the dummy duck right side up no matter how you throw out your decoys or how heavy the sea.

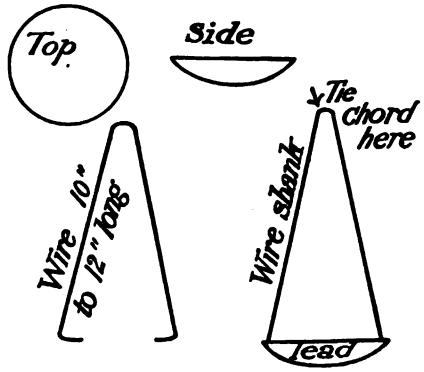
Now cut a strip of leather three inches long and a half inch wide; double it over and nail into the breast just ahead of the keel, making a loop to which to fasten your anchor cords. Be sure you put in your nail solid so it won't pull out.

I will describe the anchors I use for these big decoys, and advise them as the best. Cut a saucer-shaped hole in a board about two and one-half inches in diameter by half an inch deep. Cut your initials in the wood and you won't lose your decoys or anchors. Take a piece of brass wire ten inches long and bend it in the center as in drawing. Then bend the ends about one-half inch in and put into the hole as per cut. Now when your lead is hot and you have your wire in position (hold the wire with a pair of pliers so as not to burn your fingers) pour in the lead, and when it has cooled turn the board over and your weight will drop out finished as per cut. The big loop in the wire you can slip over the decoy head. These weights should weigh from twelve to sixteen ounces. When the decoy jerks the anchor, it slightly tips the saucer, causing the edge to dig into the ground, and holds the same as an anchor to a boat.

In making mallard decoys, the heads should be made "kind of humped up" and the back should have more of a hump to it as per cut. It should be thirteen and one-half inches long and seven and one-half inches wide at widest point just back of the back of the head, and four and one-half inches high from top of back to lower side.

In painting, the bill should be a yellow, head black on top and back, and green on sides with white bands on neck, dark reddish brown breast, slate color on back, black on tail, green on wing ends with white and black bars, white underneath. Head made as per drawing. In the female brown color with white markings, green ends on wing tips, bill yellow.

In mallard shooting, as a rule, half a dozen decoys will be enough, unless there is a succession of open ponds or lakes. If there is a great deal of open water you can use a dozen mallard decoys. About four drakes to eight hens for mallards make the best



selection. Remember that mallards like little holes or ponds in the rice, and a half a dozen big decoys go a long ways. Mallards are not like deep water ducks; they prefer their own select crowd, while deep water ducks like to be with the big bunch where nearly all kinds are mixed, hence a mixture of the three kinds I have named.

In setting out your big decoys for open water shooting, set out your bluebills in front of your blind; if a cross wind is blowing set your decoys in the shape of a V heading into the wind; bunching the bluebills in the center of the V and on the inner line. Put your canvasback and redheads on the outer side of the V and also a couple on the outer tail for leaders; to follow in. The leaders you can run out sixty yards from your blinds, but keep your main bunch within thirty yards of you, so as to leave enough room for the birds to swing to alight.

Each of your big decoys needs about six to eight feet of room, and this will leave openings for your birds to come to alight into the center of your decoys, thus giving you the shots at a certain killing range nearly every time.

If you are shooting with a wind behind you set your decoys in the shape of a diamond, leaving the center fairly open in front of your blinds, for the birds to alight, with a couple of leaders away out. Now, dear reader, I do not let my ducks alight if I can possibly help it. I try and catch them just as they are over my decoys, about to alight.

There is no sport in shooting a duck or any other bird sitting, and I trust the readers of this article will give the ducks a chance for their lives by shooting them invariably on the wing, and only in the autumn.

No spring duck shooting.

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THE SCHOOLING OF MR. AND MRS. JONES

THE TRUTHFUL TALE OF TWO PUPPIES

By James H. Tuckerman

WHEN Mr. and Mrs. Jones, the fox-hound puppies, were eight months old, and their tan-colored great-coats had begun to look as if they really had been made for them, and not merely passed on to them by some stout old game-trailing relative who had outgrown them, we decided to begin their education. Both were amiable intelligent puppies, royally bred, and with the promise—if there be anything in heredity—of developing marked olfactory astuteness. We looked forward with pleasant anticipation to their elementary lessons in those branches of woodcraft science so essential to their particular canine calling. It would be an instructive diversion during the long winter weeks to observe in detail the methods employed by Nature in developing that mysterious instinct which had been handed down to Mr. and Mrs. Jones through an unbroken line of sporting ancestors, and which would enable them, in time, to follow an unseen quarry through an invisible labyrinth of paths more accurately than we could follow a "to-the-menagerie" trail in the park.

"Try them on a short drag hunt first," an old fox hunter in a neighboring county had advised us; "take a rabbit skin or even a piece of old meat, tie it to a string and drag it through the fields; your puppies will soon trail it if there is anything in them." Apparently there was "nothing in them"—nothing beyond a gastronomic gnawing that resisted all efforts to appease it. The puppies would trail the piece of old meat with frantic eagerness and praiseworthy tenacity, but they paid no more attention to the rabbit skin than they would have to an unabridged dictionary.

A quarter of a mile from the house there was a splendid strip of pines, extending down a long southern slope and gradually tapering off into scrub oaks and sassafras bushes and ending finally in a swamp. Underneath the piles of dead limbs and in the numerous briar bushes a colony of cottontail rabbits made their homes. We decided to supplement the rabbit-skin drag with the live article. On every pleasant day for four weeks we took Mr. and Mrs. Jones into the woods and watched—and watched in vain—for some sign of an awakening of that boasted instinct. Rabbits would scurry out from their quarters only a few yards ahead of us and when we held the puppies' gifted noses to the fresh tracks they merely gazed at us with vacant smiles in their eyes and wagged their tails pensively. And we never could decide just what kind of a miracle it was that was wrought in them and that finally brought about the awakening.

On a Saturday afternoon Mr. and Mrs. Jones were still groping blindly in the dark. On Sunday afternoon at four o'clock they saw the light. We were returning from an afternoon walk across the fallow field that lay between the woods and the main road. The puppies, weary from a hard gallop after a neighbor's calf, were walking behind us with bowed heads. Suddenly a rabbit scurried across the field and into the woods some thirty yards ahead. We made no effort to point out the trail; it seemed hopeless and it was Sunday. When we reached the place where the cottontail had crossed, Mr. Jones stopped, tipped his head thoughtfully; gazed questioningly for a moment at Mrs. Jones, and placed his nose on a round bare spot of earth about the size of the bottom of a dinner pail. He drew in his breath heavily four or five times and sighed as deeply. Then he slowly raised his head, his eyes upturned to the skies, and broke into a hymn. It was like the chanting of the Twenty-second Psalm. There was no joy in it, no note of exultation or praise or thanksgiving. Mr. Jones's rich baritone rose in a long quavering crescendo until the empty field was flooded with it and the woods echoed with its loneliness. Every note seemed a dreary prophecy of desolation and woe. It was as if on that mysterious little tablet at his feet there had suddenly been revealed to him his life's journey and he had seen only the thorns and the briars that were to tear his ears and prick his feet. It was entirely different from what we had expected. Mrs. Jones seemed quite as much surprised. She did not join in the music, but when her lord

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started toward the woods following the rabbit's path, and becoming more and more emotional with the discovery of each fresh tablet, she followed him. A few moments afterward when they had disappeared in the pines we heard her high falsetto, but whether she too had finally read the writing on the tablet or whether she had become merely hysterical through sympathy, we could not decide. That night they remained in the woods and swamp. The hymn, which had grown more and more broken and halting as the trail grew colder, finally ceased as a sustained effort altogether. But all through the night, at varying intervals and from curiously unexpected places, the silence of the sleeping woods would be torn by sudden wild exclamations from Mr. Jones and the high querulous quick response of Mrs. Jones. We listened to them through an open window and it was like following two audible fireflies.

They returned the next day at about noon, haggard and torn and so exhausted they could scarcely wait to be shut in their kennel. In that one night their characters had undergone a complete change. They were no longer the blithe irresponsible puppies of the morning before. Mr. Jones's smooth young brow was furrowed with deep worried wrinkles; he carried his tail at a dignified angle and he went about with a pre-occupied air, his mind burdened with questions of too serious import to even heed Peter the pointer's invitation for a rough and tumble in a pile of dry leaves. The change in Mrs. Jones was less marked, she still retained some of her old time puppy wriggle when she greeted us and she even took advantage of Mr. Jones's mental abstraction to dig up a soup bone he had carefully cached in the ash heap some days before; but when alone with him it was evident she shared his restlessness and depression. Although they no longer betrayed any eagerness or elation at the prospect of going into the woods, they seemed utterly powerless to keep away from them. Some mysterious influence, which they struggled against in vain, seemed to draw them irresistibly back to the rabbit haunts. After a night in the woods they would return, jaded and frayed, their ears torn and their eyes swollen and red, but they could neither eat nor rest, and in a couple of hours they would pull their stiffened limbs together and creep dejectedly back to the woods. From our observations we decided the aroma of rabbit to them was like some powerful drug which, after they had been under its influence a few times, they acquired a habit for as men do for opium and hasheesh and such things.

Once in the woods Mr. and Mrs. Jones immediately set about to pick up the tangled cottontail thread where they had dropped it the day before. Their inability to do so was a source of never failing astonishment and mortification to them. Mr. Jones seemed inclined to blame it all upon Mrs. Jones, and his voice, when he called her in consultation over some suspected leaf or log, was peevish and irritable.

A jovial old bachelor buck, who kept apartments in an elaborately woven briar bush on the edge of a swamp, apparently became much interested in the puppies' daily lessons. Their crude and elementary knowledge of trailing was the merest child's play for him, but he seemed to find it mildly diverting, and nearly every afternoon he gave them a trail to practice on. So ignorant were they then of all his subtle arts and so laboriously slow of mind and foot that he rarely if ever had to resort to any but the simplest tricks. A straightaway through the trees with no doubling or log running was sufficient to keep them uproariously employed for an hour at a time. From our place of observation on the top of a rail fence we could, with the aid of glasses, follow the rabbit, and soon discovered how easy and simple it all was for him. After he had satisfied himself that the puppies were on his trail he would leisurely place a hundred yards or so between him and them and then sit down in a cluster of wet leaves or on a bit of soft earth. Then he would sprint lightly over the leaves for another hundred yards and repeat the performance. When Mr. and Mrs. Jones finally arrived at his first sitting-down place they naturally found the scent unusually hot, and they always made the discovery the occasion for loud and oft-repeated congratulations. When they resumed the trail they found it more difficult to follow, and when at length they reached the next stopping place and again found a hot scent there would be another period for congratulations; and thus the game was kept up until at last the trail died away into nothingness and Mr. and Mrs. Jones were left to stare blankly about them and wonder how it all happened. The rabbit, meanwhile, had returned to his apartments by a back way through the swamp. Sometimes the old buck would

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give the puppies a sight chase, trusting to his own speed and their clumsiness to elude them. It was obvious at such times that he was not actuated wholly by a desire to afford them amusement. He never failed to carry them either straight into a briar bush where, before they knew it, they were caught ears, legs, and tail in its torturing meshes, or into a barbed wire fence, which was equally disconcerting.

Gradually, however, they grew more proficient with practice, and after they had learned how many precious moments might be saved in circling for a lost trail instead of going laboriously over every inch of ground, their friend the buck was compelled to resort to some of his prettiest strategies to throw them off. The one upon which he most often relied, and which was as clever in its conception as it was brilliant in execution, consisted in leading the puppies down the southern slope to the edge of a gully that divided the woods from the swamp. This was not more than five feet across, and when the rabbit reached it he would bound lightly over, then, turning in his tracks, leap diagonally back again and run a few yards into the bushes where, under cover of a bramble pile, he would sit down to watch the discomfiture of his friends. Down the slope a moment later would come Mr. and Mrs. Jones hot upon the scent, their tails beating time to a glad unholy processional only to have it cease abruptly on the brink of the gully. Naturally the first inference was that the rabbit was somewhere in the bottom of that ditch, and at least three minutes were generally lost in discovering that the inference was wrong. If he was not in the ditch he must be somewhere on the other side, and the search was taken up there only to end finally in the one lone track that had no beginning and no ending. This simple little problem in plane geometry was too much for the puppies. It baffled them for days, but at last Mrs. Jones, who was always quicker of wit, if less persevering, than Mr. Jones solved it, and the *quod est demonstratum* which they jubilantly proceeded to place at the end of it resulted disastrously for its propounder. They chased him not only through his own apartments in the swamp but into all his favorite ravines and brush heaps; his balks and his crosses and doubles availed him nothing. We followed their loud pæan through the pines and the field, across the road, and far into the heart of another wood when it ceased—suddenly and tragically. It is possible our fears were groundless, but after that day we never ran across the genial old buck again nor saw his tiny stern searchlight playing at dusk through the pines; and we missed him.

Early one morning, a month later, the puppies ran across the cold trail of a gray fox. Instantly their hackles rose and they gave voice to low muttered growls of defiance, but they made only a feeble effort to follow the trail. That same instinct had told them that those new tablets had been laid there by an adversary who in strategy and strength was still too masterful for them. After the winter's course in the woods, however, we felt justified in conferring upon Mr. and Mrs. Jones their degrees of bachelors of trailing.

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ENGLISH AND AMERICAN UNIVERSITY ATHLETICS

SPORTSMANSHIP IN ENGLAND AND AMERICA

By John Corbin

IF it is true, as the French proverb teaches, that to understand all is to forgive all, then few things could have contributed more to fellowship between the two great branches of the English-speaking people than recent international athletic contests. When the first of the series of modern inter-university meetings was arranged, no longer ago than 1894, the darkness of the English mind with regard to things American was little short of Egyptian. The president of the Oxford Athletic Association, on receipt of the challenge from Yale, called on a Harvard graduate who happened to be in residence in his college, showed him the challenge, and asked "What *is* this Yale?" He was under the impression that it was the American equivalent of a public school, and hardly up to the dignity of an inter-varsity contest. Of the Harvard man's rude delight at his question I need not speak. When the Oxonian learned that "this Yale" was a university, an old university and a large university, he asked whether it was worth going up against in athletics. The Harvard man answered that that was according as one looked at it: of late years he was forced to admit Harvard had got very little satisfaction out of going up against that Yale. Then he produced a newspaper account of the recent dual athletic meeting for the Oxford president's perusal. The performances in almost every event were better than those in the latest Oxford and Cambridge meeting. The result was a conference between the powers that were, and a prompt acceptance of the challenge. This was only seven years ago; but now no English sportsman would speak of this Yale, this Harvard, this Cornell, this Pennsylvania, or this anything in America that happened to be looking for a fight. Meantime, American sportsmen have had equally good opportunities for enlarging the bounds of their experience. Half a dozen years ago most of us would have asked, "What is this Leander?"

Much as we have both learned, however, a complete mutual comprehension is apparently as far off as ever. And perhaps this is fortunate for the welfare of sport and sportsmanship. When we know and pardon all it will be manifestly absurd to try conclusions. The question as to superiority will be left to the mathematical faculties of the rival universities. The significance of this is by no means obvious. Not many years ago I was so convinced that we had everything to learn from English sportsmanship that I went to Oxford and studied it at first hand, playing football for my college and representing the university in the athletic sports. I am more than ever impressed with the good sense and amenity of English contests, and with the value of certain aspects of English training, but I have lost the zeal of the missionary; and if I had not, it would be hard to decide which country is more in need of reformation. The differences between England and America are as clear as the kinship, and they are quite as impossible to alter. The more closely we know the virtues of our transatlantic cousins, the more we shall deprecate their shortcomings; and for both reasons we shall be the more eager to join again and again in the friendly contest.

Granted, the common love of out-of-door sports, the two countries differ in almost every particular. The United States is the youngest of the great modern nations and the most democratic; England is the oldest, and perhaps the most aristocratic. Harvard, Yale, Princeton, Pennsylvania, Cornell—merely to speak the names in a single breath raises an atmosphere of jealous and aggressive rivalry, and to put them in writing is to reflect uneasily on the dozens of institutions that are pretty sure to resent omission from the list. Oxford, Cambridge—there is an immediate suggestion of fifteenth-century architecture overgrown with ivy, and of general old-world amenity and repose; and there is no third institution to resent omission. If you were to ask a graduate of the University of London or of

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the new university at Birmingham, of Edinburgh, Glasgow, Aberdeen, Durham or Dublin, whether he were a university man, the chances are that he would say he was not, and take no shame: the phrase in England means a man who has been at Oxford or Cambridge. With us some new and burning question is agitated every year. Shall Harvard play Princeton? Shall Yale row Pennsylvania or Cornell? Shall the football games be held in New York, or on home grounds? And in default of such questions it becomes a matter of life and death that this or that contest shall be played on Saturday and not on Thursday. The local newspapers print long discussions of the points at issue.

Great athletic leagues have been dissolved by cliques that arose out of mutual jealousies; and all of us can remember occasions on which leading universities have refused to play the vital game of the season rather than be "dictated to" by its rival.

In England controversies occur, to be sure, but they are discussed quite privately and as personal concerns, which of course they are. During my time at Oxford, as it happened, an exceptionally bitter winter afforded a pretext for postponing the sports from the day after the boat race in March to the day after the cricket match in July. The Oxford don who took the lead in the sports thought that, if once tried, this arrangement would insure the games a larger attendance and greater popularity; and though, as Cambridge urged, it would have been quite as easy to run them off in March as it was to row the boat race, he carried his point. After a brisk exchange of letters, Cambridge graciously gave way. The correspondence was published in *The Field*, and made it quite clear that, to use the odious American phrase, Oxford had "dictated to" Cambridge. But no undergraduate gave out his opinion on the subject for publication, and no critic discussed the question. After the games were over and the experiment had failed, the newspapers barely commented on the fact by way of indicating that next year they would be held in March as usual. There may have been a trace of irony at the lack of ultimate justification for Oxford's insistence, but even that was discreetly veiled. For all the world knew, the sister universities had been seated at the usual love feast. The endless plots and bickerings among American universities never seemed to me so unnecessary and so little desirable as an incident to sport or as a part of the life of young men as they did in the light of this experience. We are only gradually coming to realize that sport, after all, is sport, and not a matter of life, death and eternity.

In the actual training of the team the differences between the two countries is no less marked. In America the captain, generally under the advice of a professional trainer, issues a call for candidates every autumn, and though the intercollegiate sports are some eight months in the future, the college papers urge each and every man to try for the team. Training is a matter of loyal duty, almost of religion. If the college has been losing of late, one is likely to be urged to make all possible personal sacrifices in order to help the university to struggle free from disgrace. It is no uncommon thing for three or four hundred fellows to train systematically and hard for the dozen or so of vacant places. In England there is no call for candidates; and when I asked to whom I should report, my question was not understood. The president of the athletic association was playing association football for the university, and most of the others of last year's "blues" were similarly occupied. There was, of course, no professional trainer. I was not expected to report to anyone. At the university running grounds I fell in with at most a score or so of fellows practising daily, all training according to their best lights and helping one another. Besides the freshmen games and the university games, the only incentive to keep fit was a series of games given by the several colleges, in each of which a single "strangers' race" was open to general competition. As the season advanced a few of the blues came out, and with them Mr. C. N. Jackson, who has for years looked after the training of the team. He apparently took no notice of me, and for some days I rather fought shy of him. How could I possibly address him when he had not even asked me to help save the university from disgrace! When I did venture to approach him, it was to present a letter of introduction. To my surprise I found that he had been watching me carefully, and I gathered that he thought it strange I had not spoken to him before. One of the fellows mischievously suggested that he had suspected me of wanting to practise in secret after the manner of an

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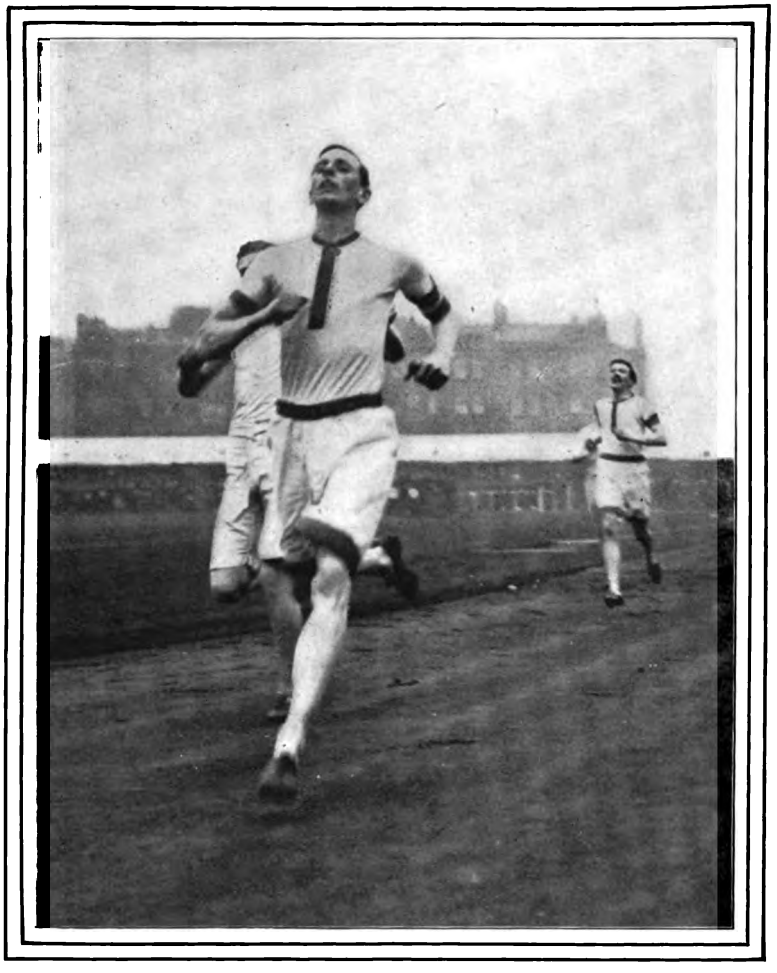
American crew. Of course, there was no thought as yet of a training table. If a man wanted company he took his meals with such men of his college as happened to be in for some contest or other, but this also was a purely personal matter. It was the conscious purpose to make athletics interfere as little as possible with one's individual comfort and ordinary pursuits.



FINISH OF AN OXFORD QUARTER AT QUEENS.

For all this there was sufficient reason. Most of the abler men were wanted for other teams, and one of them, who was rather a phenomenon in the way of versatility, played Rugby and Association football and cricket, besides having a "double blue" for sprinting and jumping. In the course of his undergraduate life he was captain of the university team in three different sports—athletics, cricket and association football. It was said to be a mortification to him that he had no time to row. Even the men of more moderate ability were likely to be wanted for various college teams, and were scarcely less preoccupied. One great reason for the moderation of English sportsmanship is this multiplicity of sports, for where there are so many games on, it would be hard to convince everyone that each of them is of supreme importance. And moreover where men are so constantly in training there is little need to insist on military régime. An Englishman believes that it is wholesome to go in for out-of-door sports, and he knows it is about the best fun in life. In a quiet way, sportsmanship has come to be an ideal. Only the townspeople now use the word gentleman. In the university more than enough has been said in acknowledging that a man is a sportsman. As for the victory, it is regarded as a pleasant possibility but by no means an essential of self-respect.

For the last few weeks before the sports the English university teams train at Brighton. It is universally recognized that the climate of the Thames valley and especially at Oxford, is the most relaxing in England, and that the climate of Brighton is the most stimulating. Here the régime

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THE OXFORD-CAMBRIDGE HALF MILE AT QUEENS.

takes as serious an aspect as is known to English sport. Our captain explained to us new men that he thought a dip in the Channel before dressing a jolly good thing, and volunteered to rout us all out betimes if we agreed with him. Most of us did agree, though a few decidedly did not; and at seven daily were we reluctantly persuaded to shuffle on flannels and stroll down to the Old Chain Pier. Throughout the period of training we ate the normal English diet, including afternoon tea, and drank the normal English drinks. The main difference between our régime and every-day life was that we did not smoke, and went to bed betimes. On the university cricket team, which was also at Brighton, the training was not even as severe as this; at least we used to look enviously on in the evenings while certain of the cricketers smoked briar pipes. Those were halcyon days, scarcely to be bettered even in an old graduate's retrospect, and very different from the last days of training in America. I need scarcely say that we were all sincerely interested in the coming contest; but it was far from being the one absorbing thought, and no more than an undertone of disquiet enhanced the general sense of physical and mental well being.

Track exercises we took only three or at most four times a week. The other days we devoted to long and stimulating walks over the chalk downs that skirt the breezy Channel, during which one might easily have been persuaded to the ancient belief that the air coursed through our very arteries. The physical effects of varying the kind of exercise is very good, for reasons familiar to those who understand the workings of nerves, heart and muscles; and its mental effect is no less good in that it tends to keep one's thoughts away from the coming competition. The American training, which is mainly confined to the track, tends *per contra* to put too great a strain on the single set of nerves and muscles, so that they go stale before the body as a whole has reached its prime. Still as far as results are concerned our methods, taken by and large, are undoubtedly better. Mr. Horan, the president of the Cambridge team that ran against Yale in 1895, made a careful study of American training. He told me that our superiority was unquestionable, but that it seemed to him scarcely worth the cost. The law of diminishing returns applies to training as to other human effort, and it seemed to him that we did many times as much work for an advantage, he admitted, of enough to win by. Mr. Workman, of the present English team, tells me that he thinks the best results would be obtained by a compromise between American and English methods.

On the appointed day our men assembled in the dressing rooms of the Queens Club, Kensington, in frock coats and in the most casual manner. As it happened, this was

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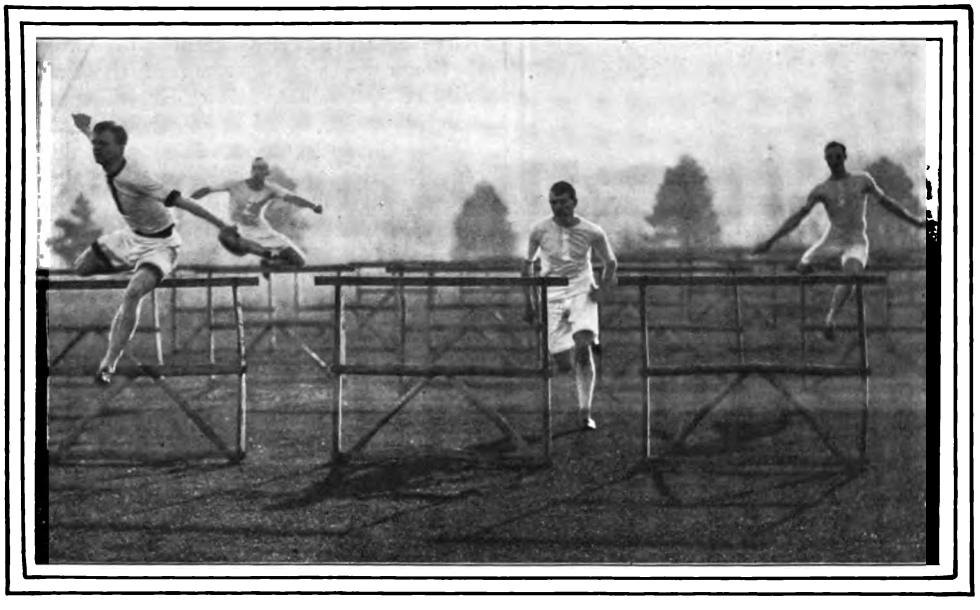
the first time the team came together as a whole. Some of the men had preferred to train at home, and one of them who was on the cricket team had not trained at all. We had several times seen him smoking; and as he was obliged to borrow a pair of shoes to jump in, it transpired he had not practised. He explained that his cricket had prevented regular practice, and that he had always found half practice worse than none. As he held the world's record of the time at his event we still had hopes of him. A more striking figure was a big and blond freshman who had several times shown very considerable ability at the hammer and shot. He confided to me that he never could find out how he did it, and so was not able to be sure of doing it again at any given time. He seemed really to care, and to care deeply, what account he gave of himself; and when I said he ought to have had someone to teach him the proper form he seemed heartily to agree with me. I have often wondered since if he would have shown the same simple earnestness in his third and fourth year at the university. To my distress, however, even the freshman did not seem fully to realize that the winning team was to go to America to run against Yale.

The many doubts I have since harbored as to the entire fitness of the English idea of sportsmanship probably date from these experiences. I am far from charging Englishmen with a lack of pluck. No one who knows them can fail to realize that they enjoy few things as they enjoy eating their hearts out at the end of a desperate race. But this is only half of the sportsman's duty. If our freshman had won either of his events, both of which with due preparation he should easily have won, or the broad jumper done within a foot or more of his best, our team would have won the games. We failed for lack of the desire to do our best. There is a good deal of food for reflection in all this. If it is true, as we are nowadays taught, that progress, intellectual, moral and physical, has been attained by those individuals and those races which have been best able to realize their native desires, then there is something peculiarly displeasing in a public opinion that makes sportsmanship a young man's ideal, and then permits, even encourages, him to do less at it than he reasonably and honorably can. I grant that we in America have often been led beyond the boundary of reason and even of honor in our athletics, and no one can too thoroughly deprecate any code of sportsmanship which places the victory above the sport; but our vices are the vices of redundant life, and in the homely New England phrase, there is



THE STATIONARY ENGLISH HURDLES.

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FULL COSTUME OF THE OXFORD "BLUE."

enough of the same to make them less. The state of mind of the English sportsman is less hopeful. It is the state of mind that in the long geological ages has made the difference between ourselves and our backward cousin, the unforeseeing monkey; and when Mark Twain rewrites the Ten Commandments as he has been rewriting the story of Adam and Eve, we may expect to find the stirring exhortation: When it is right and profitable to do your neighbor, DO him. That is the gospel of the strenuous life.

I do not wish to preach against a supposed decadence, or in any way to be a prophet of despair. For upward of a thousand years this lack of foresight and preparation has been characteristic of the people of the so-called tight little island. The ancient Saxons knew well enough that the Danes in the end would conquer their kingdoms, yet they could not get together in season to defend their coasts and rivers, and so achieved the glory of a desperate losing struggle. Harold lost the battle of Senlac, his life and his crown, because in his conservatism he equipped his men with stone axes instead of a startling innovation in the armory of that day, the long bow and arrow; and Englishmen have ever since chanted the praises of his indomitable pluck! Nothing short of desperate defeat will convince an Englishman of the importance of using his wits betimes. Now if athletics have any real reason for being it is that in the way of sport they train young men to take up the struggle for existence, and, win or lose, to do their honorable best in it. To teach them that transient personal convenience is better than thoroughness and devotion is, in any modern philosophy of life, the depth of immorality—an immorality that in the struggle for survival tends to put a man at once on the downward path. There are many ways of keeping the body sound, many ways of making life pleasant; but there is only this one way in modern life in which it is possible to maintain the standard of prowess. If it is the vice of Americans to prefer success to a generous struggle, it is the vice of the English to prefer comfort to both.

Some weeks ago a crew from the University of Pennsylvania threw English sporting circles into a fit of apprehension lest the Grand Challenge Cup at Henley should follow the *America's* Cup across the Atlantic; but because the American crew was beaten (its stroke was perhaps inferior, and owing, as I firmly believe, to the effect of the climate, it was unable to spurt at the finish), no Englishman, to my knowledge, dreamed of profiting by the example of its devotion to the object of its summer's visit. Instead, they demanded to have Henley closed to Americans, making an excuse of the fact—unfortunate it is true, but admittedly not against the rules—that two of the competing American eights of late years have trained under professional coaches. Dr. Edmund Warre, head master of Eton and the Nestor of English boating, stated the case very clearly in a letter to the *Times*. "I do not wish that the American crews should be excluded out of any selfish fear lest the prizes in question should go to foreign lands, for I feel convinced that we are good enough to hold our own. But I do most earnestly desire that our amateur oarsmanship may be preserved from the deadly inroad of professionalism, which is already making a business of so much that ought to be pleasure, and threatens to crush the life out of the sports of 'merrie England.'" Surely this is to laugh. If there were no fear as to the cup, why not make a natural discrimination against crews that surrender their liberties to professionals, and have done with it. As it stands Dr. Warre's letter is another manifestation of the spirit that took umbrage at the Ameri-

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can leatherstocking for using his rifle. The fact is that rather than take the pains to give their crews a finished training, Englishmen are content to rear a wall around their garden.

But they cannot rear a wall to protect the national failing. The remedy for this sort of thing bids fair to be what it has been in the past. Dane, Norman and American have all brought new life, new laws, new morals into England. To-day an invasion is taking place which is no less important because it is proceeding quietly in the realm of science, invention and commerce. The new branches of the English-speaking race have developed new vigor in their struggles with the forces of nature across the seas, and are conquering the parent island as irresistibly as it was ever conquered in the days of old.

Let us understand English sport and sportsmanship, and emulate as much of it as is worth while; but it would scarcely be wise to throw away our good Americanism for any mere pleasantness in living; to give up one jot of the austerity of our sportsmanship for the amenities of a field day or a water party.

SHOWING THE SQUARE FROM WHICH ENGLISH ATHLETES PUT THE SHOT.

CLIMATE AND INTERNATIONAL ATHLETICS

THE value of international contests as a basis for judging the two systems of training is impaired by the fact that the visiting team is pretty sure to be under the weather. The importance of climatic influences can scarcely be explained without considerable digression into the history of international contests. The first representatives we sent abroad, the Harvard four of 1869, became so overtrained on the Thames, in work which would have been only sufficient at home, that two of the four men had to be substituted. The substitutes were taken from the "second" crew, which had just come over from the race at Worcester. The men in this crew had been so inferior as oarsmen that they had been allowed to compete against Yale only after vigorous protest; but in the race against Oxford, owing probably to the brevity of their training in England, the substitutes pulled the strongest oars in the boat. The crew got off very well, but when the time came for the final effort the two original members had not the nervous stamina to respond.

The experience of the Yale athletes who competed [illegible] Oxford in 1894 was much the same. Their performances in the games were so far below their American form that they won only the events in which they literally outclassed their opponents—the hammer, shot and broad jump. They were sportsmen enough not to explain their poor showing, and perhaps they never quite realized how the soft and genial English summer had unnerved them; but several competent observers who had watched their practice told me that they lost form from day to day. Their downfall was doubtless aided by the fact that instead of training at Brighton or elsewhere on the coast they trained in the Thames valley and at Oxford.

The experience of the Cornell crew, of which I got full and frank information while crossing the Atlantic with them after the race, was along the same lines. Before leaving Ithaca they rowed over the equivalent of the Henley course in time that was well under seven minutes, and not far from the Henley record of six minutes, fifty-one seconds. At Henley they rowed their first trials in seven minutes, three seconds, if my memory serves me, and in consequence were generally

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expected to win. From that day they grew worse and worse. Certain of the eight went stale and had to be substituted. In the race the crew, like the earlier Harvard crew, went to pieces when they were called on for a spurt—the test of nerve force in reserve—and were beaten in wretchedly slow time. They had gone hopelessly stale on work which would have been none too much in America. The experience of the Yale crew in the following year was similar to that of Harvard and Cornell. The crew went to pieces and lost the race for the lack of precisely that burst of energy for which American athletes, and Yale in particular, are remarkable.

Meantime one or two American athletes training at Oxford had been gathering experience, which, humble though it was, had the merit of being thorough. Mr. J. L. Bremer, who will be remembered in America as making a new world's record over the low hurdles, steadily lost suppleness and energy at Oxford so that he was beaten in the quarter mile in time distinctly inferior to his best in America. Clearly, the effect of the English climate is to relax the nervous system and thereby to reduce the athlete's power both of sprinting *per se* and of sprinting at the finish of the race. My own experience in English training confirmed the conclusion, and pointed to an interesting extension of it. In general I am inclined to think that a short stay in England is more than likely to undo an athlete, and especially for sprinting: and even if he stays long enough to find himself again, his ability to sprint is likely to be lessened. In the long run, on the other hand, the English climate produces staying power in almost the same proportion as it destroys speed. Certainly the English outclass our men in distance running as clearly as we outclass them at all events requiring a single burst of energy—sprinting, hurdling, jumping, vaulting, etc. When the joint team from Yale and Harvard went to England in 1899, the powers that were took advantage of past experiences, and instead of going to the Thames Valley to train, they went to Brighton, and instead of doing most of their training in England, they gave themselves only the few days necessary to get their shore legs and become acquainted with the Queen's Club track. As a result, the team was in general up to its normal form, or above it, and except for the fact that one of the men was ill, would have won.

The experience of the English athletes who came to America in 1895 points to a similar conclusion. Though the heat was intense and oppressive and most of the visitors were positively sick, one of the sprinters, in spite of severe illness, was far above his previous best, while all of the distance men went quite to pieces. Thus our climate would seem to reduce the staying power of the English athletes, and perhaps to increase the speed of sprinters. It appears on the whole probable that in these international contests the visiting athlete had best do as much as possible of his training at home, and it follows that the visiting team is at a distinct and inevitable disadvantage.

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THE HANGING OF TALTON HALL

By John Fox, Jun.

I.

THROUGH mountain and valley, humanity had talked of nothing else for weeks, and before dawn of the fatal day, humanity started in converging lines from all other counties for the county-seat of Wise—from Scott and from Lee; from wild Dickinson and Buchanan, where one may find white men who have never looked upon a black man's face; from the "Pound," which harbors the desperadoes of two sister States whose skirts are there stitched together with pine and pin-oak along the crest of the Cumberland; and farther on, even from the far away Kentucky hills, mountain humanity had started at dawn of the day before. A stranger would have thought that a county-fair, a camp-meeting, or a circus was the goal. Men and women, boys and girls, children and babes in arms; each in his Sunday best—the men in jeans, slouch hats, and high boots; the women in gay ribbons and brilliant home-spun; in wagons and on foot, on horses and mules, carrying man and man, man and boy, lover and sweetheart, or husband and wife and child—all moved through the crisp September air, past woods of russet and crimson and along brown dirt roads to a little straggling mountain town where midway of the one long street and shut in by a tall board-fence was a court-house, with the front door closed and barred, and port-holes cut through its brick walls and looking to the rear; and in the rear a jail; and to one side of the jail a tall wooden box with a projecting cross-beam in plain sight, from the center of which a rope swung to and fro, when the wind moved.

Never had a criminal met death at the hands of the law in that region, and it was not sure that the law was going to take its course now; for the condemned man was a Kentucky feudsman, and his clan was there to rescue him from the gallows, and some of his enemies were on hand to see that he died a just death by a bullet, if he should manage to escape the noose. And the guard, whose grim dream of law and order seemed to be coming true, was there from the Gap, twenty miles away, to see that the noose did its ordained work. On the outskirts of the town, and along every road, boyish policemen were halting and disarming every man who carried a weapon in sight. At the back windows of the court-house and at the threatening little port-holes were more youngsters, manning Winchesters and needle-guns; at the windows of the jailer's house, which was of frame and which joined and fronted the jail, were more still on guard, and around the jail was a line of them, heavily armed to keep the crowd back on the outer side of the jail-yard fence.

The crowd had been waiting for hours. The neighboring hills were black with people, waiting; the house-tops were black with men and boys, waiting; the trees in the streets were bending under the weight of human bodies, and the jail-yard fence was full three deep with people hanging to the fence and hanging to one another's necks, waiting. Now the fatal noon was hardly an hour away, and a big man with a red face appeared at one of the jailer's windows; and then the sheriff, who began to take out the sash. At once a hush came over the crowd and then a rustling and a murmur. It was the prisoner's lawyer, and something was going to happen. Faces and gun-muzzles thickened at the port-holes and the court-house windows; the line of guards in the jail-yard wheeled and stood with their faces upturned to the window; the crowd on the fence scuffled for better positions, and the people in the locust-trees craned their necks from the branches, or climbed higher, and there was a great scraping on all the roofs; even the black crowd out on the hills seemed to catch the excitement and to sway, while spots of intense blue and vivid crimson came out here and there from the blackness when the women rose from their seats on the ground. Then—sharply—there was silence. The big man disappeared, and in his place, and shut in by the sashless window, as by a picture-frame, and blinking in the strong light, stood a man with black hair, cropped close, beard gone, face pale and worn, and hands that looked thin—stood Talton Hall.

He was going to confess—that was the rumor. His lawyers wanted him to confess;

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"BEEN ENOUGH KILLIN' ON MY ACCOUNT," HE SAID ABRUPTLY; "I DON'T WANT NOTHIN' MORE DONE ABOUT THIS."

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the preacher who had been singing hymns with him all morning wanted him to confess; the man himself wanted to confess; and now he was going to confess. What deadly mysteries he might clear up if he would! No wonder the crowd was still eager, for there was hardly a soul but knew his record—and what a record! His best friends put the list of his victims no lower than thirteen—his enemies no lower than thirty. And there, looking up at him, were three women whom he had widowed or orphaned, and at one corner of the jail-yard still another, a little woman in black—the widow of the constable whom Hall had shot to death only a year before.

Now Hall's lips opened and closed; and opened and closed again. Then he took hold of the side of the window and looked behind him. The sheriff brought him a chair and he sat down. Apparently he was weak and he was going to wait awhile; and so he sat, in full view, still blinking in the strong light, but nodding with a faint smile to some friend whom he could make out on the fence, or in a tree, or on a house-top, and waiting for strength to lay bare his wretched soul to man as he claimed to have laid it bare to God.

II.

One year before, at Norton, six miles away, when the constable turned on his heel, Hall, without warning, and with the malice of Satan, shot him, and he fell on the railroad track—dead. Norton is on the Virginia side of Black Mountain, and at once Hall struck off into the woods and climbed the rocky breast of the Cumberland, to make for his native Kentucky hills.

"Somehow," he said to me, when he was in jail a year after, "I knowed right then that my name was Dennis"—a phrase of evil prophecy that he had picked up outside the mountains. He swore to me that, the night of the murder, when he lay down to sleep, high on the mountain side and under some rhododendron-bushes, a flock of little birds flew in on him like a gust of rain and perched over and around him, twittering at him all night long. At daybreak they were gone, but now and then throughout the day, as he sat in the sun planning his escape, the birds would sweep chattering over his head, he said, and would sweep chattering back again. He swore to me further, on the day he was to go to the scaffold (I happened to be on the death-watch that morning), that at daybreak those birds had come again to his prison window and had chirped at him through the bars. All this struck me as strange, for Hall's brain was, on all other points, as clear as rain, and, unlike "The Red Fox of the Mountains," who occupied the other cell of his cage, was not mystical, and never claimed to have visions. Hall was a Kentucky feudsman—one of the mountain border ruffians who do their deeds of deviltry on one side of the State-line that runs the crest of Black Mountain, and then step over to the other side to escape the lax arm of mountain-justice. He was little sorry for what he had done, except, doubtless, for the reason that the deed would hamper his freedom. He must move elsewhere, when a pair of hot black eyes were at that moment luring him back to Norton. Still, he could have the woman follow him, and his temporary denial bothered him but little. In reality, he had not been much afraid of arrest and trial, in spite of the birds and his premonition. He had come clear of the charge of murder many times before, but he claimed afterward that he was more uneasy than he had ever been; and with what good reason he little knew. Only a few miles below where he sat, and beyond the yawning mouth that spat the little branch trickling past his feet as a torrent through the gap and into Powell's Valley, was come a new power to take his fate in hand. Down there—the Gap itself was a hell-hole then—a little band of "furriners" had come in from blue-grass Kentucky and tide-water Virginia to make their homes; young fellows in whom pioneering was a birthright; who had taken matters into their own hands, had formed a volunteer police-guard, and were ready, if need be, to match Winchester with Winchester, pistol with pistol, but always for and in the name of the law. Hall had one enemy, too, to whom he gave little thought. This was old "Doc" Taylor—a queer old fellow, who was preacher, mountain-doctor, revenue-officer; who preached Swedenborgianism—Heaven knows where he got it in those wilds—doctored with herbs night and day for charity, and chased criminals from vanity or personal enmity, or for fun. He knew every by-path through the mountains, and he moved so swiftly that the superstitious credited him with superhuman powers of locomotion. Nobody was surprised, walk-

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ing some lonely path, to have old Doc step from the bushes at his side and as mysteriously slip away. He had a spy-glass fully five feet long with which to watch his quarry from the mountain-tops, and he wore moccasins with the heels forward so that nobody could tell which way he had gone. In time his cunning gave him the title of "The Red Fox of the Mountains." It was the Red Fox who hated Hall and was to catch him; the "furriners from the Gap" were to guard him, see that he was tried by a fearless jury, and, if pronounced guilty, hanged. Hall knew Taylor's hatred, of course, but scorned him, and he had heard vaguely of the Gap. In prison he alternately cursed his cell-mate, who, by a curious turn of fate, was none other than the Red Fox caught, at last, in his own toils, and wondered deeply, and with hearty oaths, "what in the hell" people at the Gap had against him that they should leave their business and risk their lives to see that he did not escape a death that was unmerited. The mountaineer finds abstract devotion to law and order a hard thing to understand. The Red Fox more than hated Hall—he feared him; and now Hall, after capture, hated him! No sooner was the feudsman's face turned southward than the Red Fox kept cunning guard over the black-eyed woman at Norton and, through her, learned where his enemy was. More—he furnished money for two detectives to go after Hall and arrest him on a charge of which he was not guilty, and thus decoy him, without resistance, to jail, where they told him the real reason of the arrest. Hall fell to the floor in a cursing fit of rage. Then the Red Fox himself went south to help guard Hall back to the mountains. A mob of the dead constable's friends were waiting for him at Norton—for the murder was vicious and unprovoked—and old Doc stood by Hall's side, facing the infuriated crowd with a huge drawn pistol in each hand and a peculiar smile on his washed-out face. Old Squire Salyers, father-in-law to the constable, made a vicious cut at the prisoner with a clasp knife as he stepped from the train, but he was caught and held, and with the help of the volunteer guard from the Gap, Hall was got safely to jail at Gladeville, the county-seat of Wise.

It was to protect Hall from his enemies that concerned Hall's Kentucky mountain-clan at first, for while trial for murder was not rare and conviction was quite possible, such a thing as a hanging had never been heard of in that part of the world. Why, then, the Red Fox was so eager to protect Hall for the law was a mystery to many, but the truth probably was that he had mischief of his own to conceal; and, moreover, he knew about that guard at the Gap. So, during the trial, the old man headed the local guard that led Hall to and from jail to court-house, and stood by him in the court-room with one of the big pistols ever drawn and that uncanny smile on his uncanny face. For the Red Fox had a strange face. One side was calm, kindly, benevolent; on the other side a curious twitch of the muscles would now and then lift the corner of his mouth into a wolfish snarl. So that Dr. Jekyll and Mr. Hyde in old Doc were separated only by the high bridge of his nose. Throughout the long trial, old Doc was at his post. Only one night was he gone, and the next morning an old moonshiner and four of his family were shot from ambush in the "Pound." As Doc was back at his post that afternoon, nobody thought of connecting the murder with him. Besides, everybody was concerned with the safety of Hall—his enemies and his friends: his friends for one reason, that eight of the jury were fearless citizens of the "Gap" who would give a verdict in accordance with the law and the evidence, in spite of the intimidation that, hitherto, had never failed to bring a desperado clear; and for another, that the coils were surely tightening; his enemies, for fear that Hall's friends would cheat the gallows by rescuing him from jail. Rumors of rescue thickened every day—Hall's Kentucky clan was coming over Black Mountain to take the prisoner from jail. Moreover, Hall's best friend—John Rawn—was the most influential man in the county—a shrewd, daring fellow who kept a band of armed retainers within call of his yard-fence. He, too, it was said, was going to help Hall to freedom. Accordingly the day before the verdict was brought in, twenty of the volunteer guard came up from the Gap, twenty miles away, to keep Hall's friends from saving him from the gallows, and his enemies from rescuing him for death by a Winchester; and to do this they gave it out that they would put him aboard at Norton; but, instead, they spirited him away across the hills to another railroad.

A few months later Hall was brought back for execution. He was placed in a cage that had two cells, and, as he passed the first cell

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an old freckled hand was thrust between the bars to greet him and a voice called him by name. Hall stopped in amazement; then he burst out laughing; then he struck at the pallid face through the bars with his manacles and cursed him bitterly; then he laughed again, horribly. It was the Red Fox behind the bars on charge of shooting the moonshiner's family from ambush—the Red Fox caught in his own toils; and there the two stayed in adjoining cells of the same cage. The Red Fox sang hymns by day, and had visions by night, which he told to the death-watch every morning.

The Red Fox's terror of Hall was pathetic. Once he wrote to my brother, who was first in command in the absence of the captain of the guard: "This man iS a Devil and i am a fraid of him he is trying to burn the gail down and i wiSh you would take him away." But the two stayed together—the one waiting for trial, the other for his scaffold which was building. The sound of saw and hammer could be plainly heard throughout the jail, but Hall said never a word about it.

He thought he was going to be pardoned, and if not pardoned—rescued, surely. He did get a stay of execution for a month, and then the rumors of rescue flew about in earnest, and the guard came up from the Gap in full force and cut port-holes in the court-house walls, and drilled twice a day and put out sentinels at night. The town was practically under military law, and the times were tender. By day we would see suspicious characters watching us from the spurs round about and hear very queer noises at night. The senses of the young guards got so acute because of the strain, that one swore that he heard a cat walking over the sand a hundred yards away. One night there was a lively discussion when the captain gave strict orders that the pickets must fire as soon as they saw the mob, in order to alarm the guard in town, and not wait until they were personally safe. This meant the sacrifice of that particular picket, and there was serious question as to the right of the captain to give orders like that. And that night as I passed through the room where the infant of the guard was waiting to go on picket duty on a lonely road at midnight, I heard him threshing around in his bed, and he called to me in the manner of a farewell:

"I—I—I've made up my mind to shoot," he said; and so had everybody else. Whether a thing happens or not makes little difference as far as the interest of it is concerned, when one is convinced that it is going to happen and looking for it to take place any minute; at least, waiting out on a lonely road under the stars, alone, for a band of "wild jayhawkers from old Kanetuck" to come sweeping down on the town was quite enough to keep the pickets awake and alert. One night we thought trouble was sure, and, indeed, serious trouble almost came, but not the trouble we were expecting. A lawyer brought the news that two bands of Kentuckians had crossed Black Mountain that morning to fire the town at both ends and dynamite the court-house and the jail. As there were only fifteen of us on hand, we telegraphed speedily to the Gap for the rest of the guard, and an engine and a caboose were sent down for them from Norton, six miles away. The engineer was angry at having extra work to do, and when he started from the Gap with the guard, he pulled his throttle wide open. The road was new and rough, and the caboose ran off the track while going through a tunnel; ran along the ties for several hundred yards and ran across sixty feet of trestle, striking a girder of the bridge and splitting it for two yards or more. A guard managed to struggle out of the door and fire off his Winchester just there, and the engineer, hearing it, pulled up within ten yards of a sharp curve. The delay of ten seconds in the report of the gun, and the caboose, with the thirty-five occupants, would have been hurled down an embankment and into the river. The Kentuckians did not come in that night, and thereafter the guard stayed at the county-seat in full force until the day set for the execution.

Apparently the purpose of a rescue was given up, but we could not tell, and one morning there was considerable excitement when John Rawn, the strong friend of the condemned man, rode into town and up to the jail, and boldly asked permission to see Hall. Rawn was the man to whom Hall was looking for rescue. He was a tall, straight fellow with blond hair and keen blue eyes. The two had been comrades in the war, and Hall had been Rawn's faithful ally in his many private troubles. Two of us were detailed to be on hand at the meeting and I was one of the two. Hall came to the cell-door, and the men grasped hands and looked at each other for a full minute

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without saying a word. The eyes of both filled.

"Of course, Talt," he said, finally, "I want the law to take its course. I don't want to do anything against the law and I know you don't want me to." I looked for a sly quiver of an eyelid after this speech, but Rawn seemed sincere, and Hall, I thought, dropped, as though some prop had suddenly been knocked from under him. He looked down quickly, but he mumbled:

"Yes, of course, that's right, I reckon. We don't want to do nothing agin the law."

Still, he never believed he was going to hang, nor did he give up hope even on the morning of his execution when the last refusal to interfere came in from the Governor —the chance of rescue still was left. The preachers had been coming in to sing and pray with him, and a priest finally arrived; for, strange to say, Hall was a Catholic—the only one I ever saw in the mountains. Occasionally, too, there had come his sister, a tall, spare woman, dressed in black; and she could hardly look at a member of the guard except with the bitterest open hatred. All these besought Hall to repent, and, in time, he did; but his sincerity was doubtful. Once, for instance, in a lull between the hymns, and after Hall had forgiven his enemies, the infant, who was on the death-watch, passed near the prisoner's cell-door, and Hall's hands shot through the bars and the tips of his fingers brushed the butt of the boy's pistol, which protruded from a holster on his hip.

"Not this time, Talt," he said springing away.

"I was only foolin'," Talt said, but his eyes gleamed.

Again, the night before, being on guard down behind the jail, I heard Hall cursing because the guards would give him no whiskey. This was cruel, for the reason that they had been allowing him liquor until that night, when he was most in need of it. As soon as I was relieved, I got a bottle of whiskey and told the watch to let him have it. Hall was grateful, and next morning he called me by my first name.

"I love you," he said, "but I've got you spotted."

He had repeatedly sworn that he would have many of us ambushed, after his death, and his sister was supposed to have our names and descriptions of us, and an old Kentucky mountaineer told me that he would rather have the ten worst men in the mountains his deadly enemies than that one woman. Hall meant that he had me on his list. As ambush would be very easy on our trips to and from the county seat, through thick laurel and rhododendron, I told the priest of Hall's threat, and suggested that he might save us trouble by getting Hall to announce in his confession that he wanted nothing else done. The priest said he would try. But for a little while on the morning of the execution, Hall, for the first time, gave up and got very humble; and there was one pathetic incident. The sister was crouched at the cell door, and Hall, too, was crouched on the floor, talking to her through the bars. They spoke in a low tone, but were not permitted to whisper. At last Hall asked that he might give his sister a secret message. It had nothing to do with the guard or the law or his escape, but he did not want it heard. The "Judge," who was on guard, was tender-hearted, but a martinet withal, and he felt obliged to deny the request. And then Hall haltingly asked aloud that his sister should bring a silk handkerchief and tie it around his throat—afterward—to hide the red mark of the rope. Tears sprang to the "Judge's" eyes, and he coughed quickly and pulled out his own handkerchief to blow his nose. It happened to be of silk, and, a moment later, I saw him pressing the handkerchief into the woman's hands. An hour later Hall said that he was ready to confess.

III.

No wonder the crowd was eager. Would he tell all? How, when he was only fourteen years old, he had shot Harry Maggard, his uncle, during the war—Hall denied this; how he had killed his two brothers-in-law —one was alive, Hall said, and he had been tried for killing the other and had come clear; how he had killed Henry Monk in the presence of Monk's wife at a wild-bee tree—he claimed to have been cleared for that; how he had killed a Kentucky sheriff by dropping to the ground when the sheriff fired, in this way dodging the bullet and then shooting the officer from where he lay, supposedly dead—that, Hall said, was a lie; how he had taken Mack Hall's life in the Wright-Jones feud—Mack, he said, had waylaid and wounded him first; how he had thrown John Adams out of the court-house

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window at Prestonburg, over in Kentucky, and broken his neck—Adams was drunk, Hall said, and fell out; why he had killed Abe Little—because, said Hall, he resisted arrest; how and where he killed Rednecked Johnson, who was found out in the woods one morning a week after he had disappeared; whether he had killed Frank Salyers, whose wife he afterward married; and the many other mysteries that he might clear up if he would speak. Would he tell all? No wonder the crowd was still.

Hall stood motionless, and his eyes slowly wandered around at the waiting people—in the trees, on the roofs, and on the fence—and he sank slowly back to his chair again. Again a murmur rose. Maybe he was too weak to stand and talk—perhaps he was going to talk from his chair; yes, he was leaning forward now and his lips were opening. He was looking downward into the uplooking face of a big, red-cheeked fellow, and he was surely going to speak. The crowd became still again. And he did speak.

"What's yo' name?" he asked. The fellow told him—he had been an unimportant witness in the trial—neither for nor against Hall.

"I thought so," said Hall, and of his own accord he turned away from the window, and that was all that the man with the charge of two-score murders on his soul had to say to the world before he left it to be judged for them, as he firmly believed, by a living God. A little later the line of guards wheeled again to face the crowded fence, and Hall started for the scaffold. He kissed my brother's hand in the jail, and when old Doc came to his cell door to tell him good-by, Hall put his face to the window and kissed his bitterest enemy—the man who had brought him to his death. Then he went out with a firm step; but his face was dispirited and hopeless at last; it looked the face of a man who has just been relieved from some long-endured physical pain that has left him weak in body and spirit. Twenty of us had been assigned by lot to duty as a special guard inside the box, and all of us, at his request, shook one of his helpless hands, which were tied behind his back. When he had mounted the scaffold, he called for his sister, and the tall, thin, black specter came in and mounted the scaffold, too, stopping on the step below him. Hall did not call her by name—he hardly looked at her, nor did he tell her good-by again.

"Been enough killin' on my account," he said, abruptly; "I don't want nothin' more done about this. I don't want no more lives lost on account o' me. I want things to stop right here."

The woman waved a threatening hand over us, and her voice rose in a wail. "Oh, Talt, I can't let this rest here. You'd just as well take up one o' these men right here and hang 'em. I ain't goin' to let it stop here—no—no!" And she began to cry and ran down the steps and out of the box.

Hall stood as motionless as the trunk of an oak. A man will show nervousness with a twitch of the lips, a roll of the eyes, or, if in no other way, with his hands; but I was just behind him, and not a finger of his bound hands moved. The sheriff was a very tender-hearted man and a very nervous one; and the arrangements for the execution were awkward. Two upright beams had to be knocked from under the trap door, so that it would rest on the short rope-noose that had to be cut before the door would fall. As each of these was knocked out, the door sank an inch, and the suspense was horrible. The poor wretch must have thought that each stroke was the one that was to send him to eternity, but not a muscle moved. All was ready at last and the sheriff cried, in a loud voice:

"May God have mercy on this poor man's soul!" and struck the rope with a common hatchet. The black-capped apparition shot down, and the sheriff ran, weeping, out of the door of the box.

So far no revenge has been taken for the hanging of Talton Hall. The mountaineer never forgets, and he hates as long as he remembers, but it is probable that no trouble will ever come of it unless some prominent member of that guard should chance, some day, to wander carelessly into the little creek to which the rough two-horse wagon followed by relatives and friends, mounted and on foot, bore the remains of the first victim of law and order in the extreme southwest corner of the commonwealth of Virginia.

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FOX HUNTING IN ENGLAND

AT THE BEGINNING OF THE TWENTIETH CENTURY

By George C. Roller

IS the popularity of fox hunting increasing in England? Yes! most distinctly, yes! Is the tone of fox hunting improving? Emphatically, no! The number of packs in the British Isles is greater than ever. The fields are larger, fashions of costume and correct "tenue" are more rigorously observed, and the turnout is better, perhaps, all round, with regard to both horses and hounds. Unfortunately, the apparent progress in the popular aspect of this noble sport to a great degree heralds its decline and fall. Its popularity increases the size of the fields, and a bloated field generally means poverty of sport; for, even putting aside the farming interest, the scent is not improved by a whole army of thrusting followers; neither is your private pleasure enhanced by the fact that unless you are lucky in your place, you stand a good chance of being ridden over, or your legs being broken against a gate-post. And are these immense fields made up of the right sort—the true sportsman? I fear not by a long way. So many hunt nowadays because to hunt in a good county is the thing to do. Therefore the best counties suffer the most in this respect. The railways also have much to answer for with their cheap and convenient arrangements and service. Imagine the feelings of the struggling farmer when he sees his wheat being ridden over and his fences destroyed by a crowd of three to four hundred men and women, the majority of whom hardly ever spend a penny in the county; who buy their horses from London dealers, and their forage from a London corn chandler. The British farmer can stand a lot, but who can blame him if he grumbles under circumstances like these.

I would say a lot about the British farmer; in most cases he is a fine sporting fellow, and is the last man in the world that would wish to see fox hunting die out. For years he has had a precious bad time, and probably has not even a nag to ride, but still he takes an interest in the sport. You have only to see his face as he directs you to the line the fox has taken, to know what his feelings are on the subject. Besides which, he knows full well that indirectly he must get some benefit from his cheerful endurance of damage by the hunt in addition to gratifying those sporting instincts which may be regarded as inherent to every tiller of the soil. In most counties the feeling between the farmer and the hunt is excellent. During the winter they conduce to the joviality of meets and breakfasts, and in the summer they try conclusions with the dismounted members at cricket and other sports. I am convinced that fox hunting has nothing to fear from the farmer. It has many more deadly foes than he.

As regards equipage, it is quite certain that the strain of foxhounds is improving all over England. Dick Roake who was for fourteen years huntsman to the Pytchley and for twenty years to the South Berks, than whom no better judge of the foxhound exists (indeed, he acts as judge at many of the hound shows in different parts of England), tells me that at no time has the breeding of the foxhound been so satisfactory as at present, especially in such kennels as the Duke of Rutland's, the Belvoir, the Grafton, and Lord Middleton's. For several years past there has been a distinct falling off in the number of pups bred in some of the less famous hunts especially in the southern counties, which have had to depend chiefly on drafts from the larger kennels in the midland and northern counties. Now this is a pity, for a great deal of the interest in hounds is lost when not bred by the huntsman at his own kennels. This falling off in home breeding may be accounted for by various reasons, chiefly, no doubt, because the masters of to-day have not the time or inclination to personally supervise their kennels as in less occupied days. Hence everything is left to the kennel huntsman, who may be a good man in his way, but who probably has the usual hatred of his class for sanitation—hence the amount of disease so rampant in many of the smaller kennels. And, secondly, because of the difficulty in getting good walks—if you can get them at

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all—for the pups. The modern puppy walker does not take the care and interest in his charge which is essential to evolve a really good hound. There are a few who do, and these yearly take the prizes at the puppy shows, proving what attention and good feeding will do. Possibly another reason why the smaller kennels have been so unsuccessful in their breeding of late years, lies in the fact that the huntsmen do not use their best young bitches for this purpose; sooner than lose their valuable services in the field they breed from the old and worn-out bitches and the result is, of course, not satisfactory.

I suppose that at no time have the first class hunts been better horsed than at present. This also applies to the fields, that are wonderfully well mounted nowadays. Never have the prices for a really good horse (up to a bit of weight) been so high. In fact, a good sound, weight-carrying clever hunter, with a reputation for boldness, will fetch almost anything in or out of reason according to the temper of the buyer and the talents of the dealer. Which is just as it should be. We can only envy the man with a purse long enough to be able to buy the best that can be got. A good run on a clinking nag is worth a king's ransom! Of late years point-to-point racing has taken quite a hold on hunting men. Hardly a hunt now but has its point-to-point to wind up the season. This has had the effect of bringing the "blood horse" into the hunting field, and after all, if one is a light weight, is there anything better than the thoroughbred? He is cantering when the cocktails are at top speed, and if his mouth has not been spoiled in the racing stable, he is far handier and cleverer in every way than the "hairy heeled" one.

Talking of point-to-point racing, and its popularity, one would naturally imagine the standard of riding in England to be improving, but I much fear this is not the case. Any dealer will tell you how difficult it is to sell a horse if it takes a bit of riding. Many a hunting man can go as straight and as well as you could wish when riding a good made hunter; put him on a "rough 'un," and you won't get him out of the first field. The reason of this is, I imagine that nowadays nine men out of ten begin riding late in life. However a hunting man may argue, and rightly so, too, perhaps, that he rides to hunt, and is not a horse-breaker. After all, what better school is there than the hunting field, not only for horsemanship but for dozens of other things, such as coolness, nerve, knowledge of the country, and how to get about it; how to save your animal and how and when to shove him along. All this has been proved by the immense use that the country has been able to make of its Yeomanry (mostly recruited from the hunting field) during the present Boer war. With a little practice they have developed into some of the finest mounted infantry in the world. So the State and the public would do well to encourage the foxhound, and, indeed, every other sort of hound.

But do they support fox hunting as they ought? I fear there is a certain section of citizens who do all in their power to discourage it, intentionally and otherwise. I will set aside the faddist, who thinks most forms of sport cruel. He is past praying for, and will never do us much harm. The danger lies in quite another direction. As I said earlier in this article, it is not the tenant farmer, it is the wealthy landlord, and that horror of horrors, barbed wire. The question is, who is chiefly to blame for the growing practice of using this horrible invention?

Ask any hunting man what line he would least prefer the hounds to take. In nine cases out of ten the answer would be, "Why through Squire or Lord So-and-so's park, to be sure!" Of all hideous blots on this fair creation, from a huntsman's point of view, give me a gentleman's park! What with his wire fencing, sunk fences, iron rails, and other unpleasant contrivances, the park is nearly always unridable, and the field, if they want to cross it, are constrained to confine themselves to the "'ard 'igh road." Once beyond the limits of his own park rails, the autocrat of the district loses sufficient of his dignity to abuse with a virile directness any of his tenants, or perhaps more frequently his neighbor's tenants, who have ventured to patch their fences here and there with wire. A farmer impoverished by a succession of bad years, not able to hunt himself, and very likely not realizing the importance to his industry of encouraging the sport in others, naturally resorts to the most economical and effectual form of fencing, especially when he is countenanced by the example of the local magnates, who are certainly not suffering from the same financial pressure.

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I have never seen this view suggested before, but I am convinced that if the squire would put up jumpable fences in his park, instead of wire and iron rails, we should find much less difficulty in persuading the farmers to follow suit, besides which, armed with so excellent an example, we could then approach the farmer with some definite scheme to remedy the danger without loss to himself. And here again it is within the landlord's power greatly to help in this matter. How often has one heard the farmer say, when taxed about his barbed wire: "Ah! If my landlord would only help me to mend my fences, but not a stick of timber can I get out of him!" Every hunt should have a wire fund, and no small one either.

Then the members of the hunt living in different districts should take upon themselves to look after the country in their immediate neighborhood. They should tactfully approach each farmer, and after being allowed to inspect his fences, they should set to work at once with his permission to remove all existing wires and substitute good strong posts and rails. Should this course be impracticable, on the score of expense or some other cause, then flagging must be resorted to. Good red wooden signs that can be easily seen, with white ones to mark the safe parts for entrance and exit. As long as we can get in and out of a meadow with ordinary risks, nothing more is required. At present one never feels quite sure, even in front of some old familiar fence that we have negotiated year after year with impunity, we are pulled up—only just in time—with that terrible cry "'ware wire!" It is ever on the increase. All real pleasure in the sport is taken away, now that one rides in continuous dread of some ghastly accident, either to one's horse or oneself.

A lesser but still a danger to fox hunting is the pheasant preservers. So many of our large landowners let their shoots for a few seasons, perhaps to some London "sportsman." What cares this gentleman for the hunt or the feelings of the people in a neighborhood? His business instincts come into play. He has paid so much for his shoot, so much for his keepers, and untold gold for his pheasants. He is not going to lose one of them if he knows it! Foxes kill pheasants so the foxes must go. "Velveteens" is of the same opinion, and only wants a very little encouragement, so poor Reynard dies an ignominious secret death. Who blames "Velveteens?" He knows upon which side his bread is buttered, and who would not do the same under the circumstances? He is a different man under a different master. Tell him that his coverts must not be drawn blank at any cost and he sees that the hunt have their fox, pockets his fee for a "find," and does the best he can as far as pheasants are concerned. To contend that a fox does no harm in a preserve is of course absurd, for although he would rather regale himself on the wily bunny, he does not object to the long tail for a change, especially if it comes handy. But the fact that so many good sportsmen provide plenty of birds for their friends, as well as a sure find for the hunt, proves that with a little give and take on both sides pheasants and foxes can exist together with much less incompatibility than is generally supposed.

Of course in the big hunting counties this shooting trouble is not so obvious, but in the woodland counties, it is getting very serious; so much so that some masters are unable to hunt more than two days a week until Christmas. And therefore in the very counties where cub-hunting is most essential, it becomes nearly an impossibility, owing to the fact that the hounds are not allowed into the coverts until they have been well shot.

This then, and barbed wire, are the two great dangers that have to be faced. We need not be afraid of the farmers or the scarcity of foxes. Indeed, I believe as a matter of fact that at no time have these been more plentiful, although they say that in some parts of the country they could do with a few more. At the present moment there are seventy-two masters hunting their own hounds in the United Kingdom, which is most satisfactory, and with such names at the head of affairs as the Duke of Beaufort, the Hon. L. J. Bathurst, Mr. J. Hargreaves, Lord Southampton, and many others equally distinguished, we have nothing to fear in that quarter. Whilst wishing them health and long life, let me add the hope that none of these eminent and zealous sportsmen may survive the glorious object to which he has given so much of his time and money as well as the more valuable qualities of an English country gentleman.

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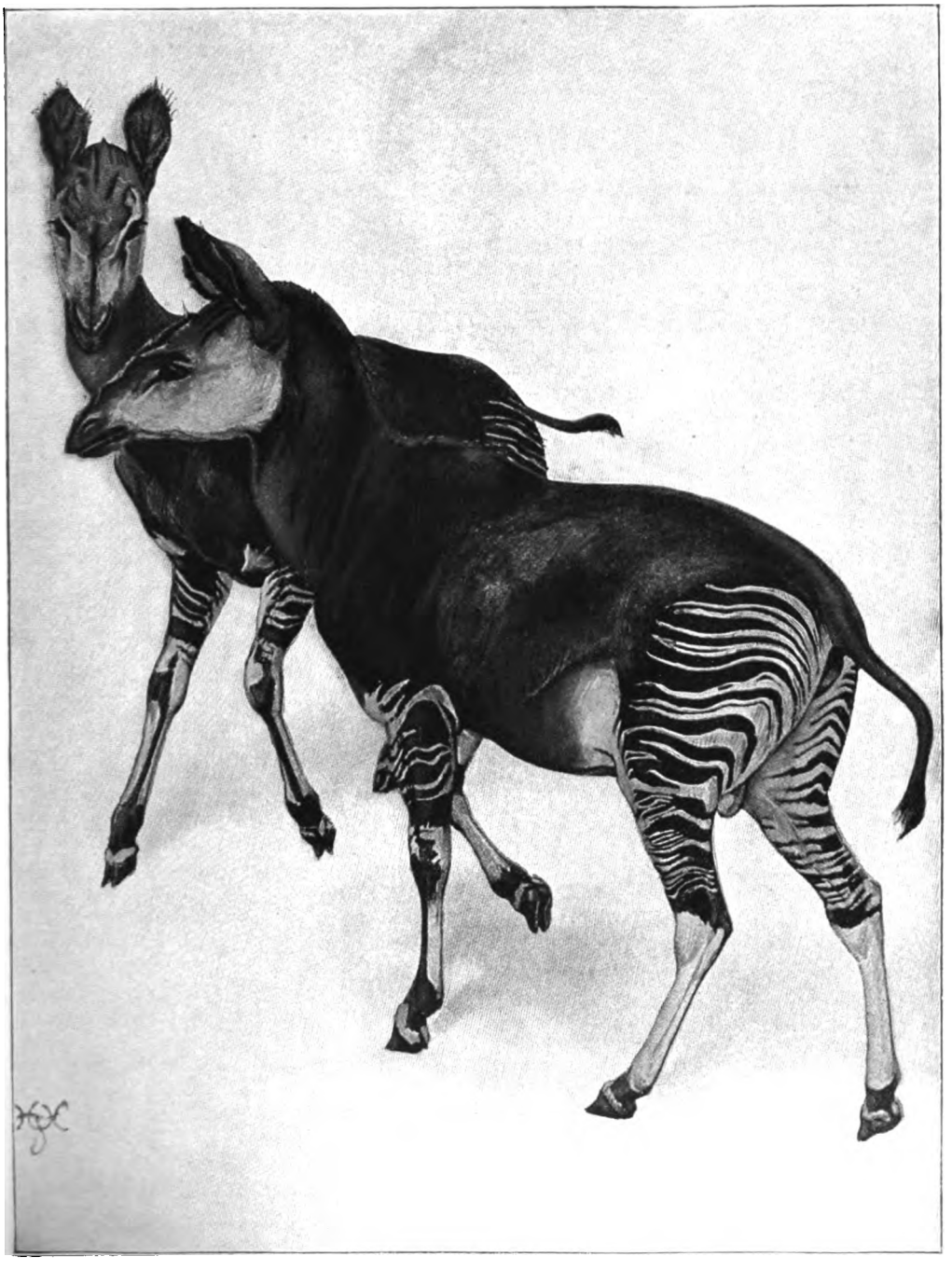

THE OKAPI, THE ANIMAL RECENTLY DISCOVERED IN THE FORESTS OF AFRICA.

This repr[illegible] the colored sketch made by Sir Harry H. Johnston, K. C. B., to whom was sent the first [illegible] native haunts in Africa. (See The Sportsman's View-Point, page 109.)
by Sir Harry H. Johnston, K. C. B., and the S. S. McClure Co.

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THE EVOLUTION OF THE YACHT DESIGNER*

FIRST PAPER—ENGLISH DESIGNERS

By W. P. Stephens

THE transition from the master shipwright to the naval architect as the controlling mind in the production of a vessel has been a slow and gradual process, occupying the greater part of the past century, and in yachting it has been even more tardy than in naval and commercial design. Crude and inadequate as they seem to-day, when measured by modern standards, the methods of the old shipwrights demand respect in view of the results produced in the face of deficiencies and difficulties which would simply appal the man of modern ideas were he suddenly confronted by them. While the designer or naval constructor of to-day is essentially a student, the bulk of his work being done in the office or the drafting room, the old-time builder was first of all a business man, managing both shipyard and business office at the same time. While the modern constructor has an unlimited supply of the finest materials—nickel steel, the highest grades of bronzes, wood, canvas, and all manner of tools and appliances—practically stored within the narrow compass of his telephone box, the old builder was often at a serious loss for sufficient oak of the sharp angles and curious curves which the old forms of vessels called for. The early training and the later life of the old shipwright were of necessity cast within narrow lines, his trade was learned by at least seven years' hard work in the yard, with no opportunity for study; a few years were possibly spent at sea before the mast or as ship's carpenter; and after that the routine of yard and office together bound him closely in one place, with neither time nor opportunity to make up the deficiencies of his early education. Where he succeeded, it was from sheer industry and ability, and where he failed, it was often from lack of suitable training. In nearly all cases the shipbuilder's life was a daily struggle with men and material, and there was no time for the calm and deliberate study of the principles of naval science.

It was with the opening of the past century that these principles became generally recognized in England as worthy of academic treatment, and by a gradual course of evolution the way was paved for the designer and naval constructor in both the naval and mercantile branches of ship building. The last quarter of the century witnessed the completion of this change in America, where it was more tardy than in England, and the general recognition of the naval architect as a distinct personality apart from the builder. There are, it is true, many modern builders who are in every sense naval architects; but the distinct functions of architect and builder are now as fully recognized in naval work as they have long been in house construction.

The evolution of the yacht designer, even in Great Britain, followed a very slow course. The fastest vessels in the early days of yachting were the English, French and Dutch smugglers of the English Channel; next in speed were the revenue cutters which chased them, too often with but poor success as far as fair sailing went. It thus came about that the fastest yachts were built by the seafaring men—smugglers, fishermen or a combination of both—at various points on the coast. As the sport of yachting grew in strength and favor with the young century, a distinct class of yacht builders developed on the east coast of England, on the south coast about the Isle of Wight, and on the Clyde; men of no education, but who by ancestry and training knew the sea and boats. Their methods were essentially of the rule-o'-thumb order; they had neither time nor opportunity for the niceties of abstract naval science, but each worked in his own homely way to make every new boat faster than the preceding one. Sometimes he succeeded, sometimes he failed, but the change from one yacht to another was usually more a matter of detail than principle, and each builder followed very closely some one stereotyped model.

[*To be completed in two papers.]

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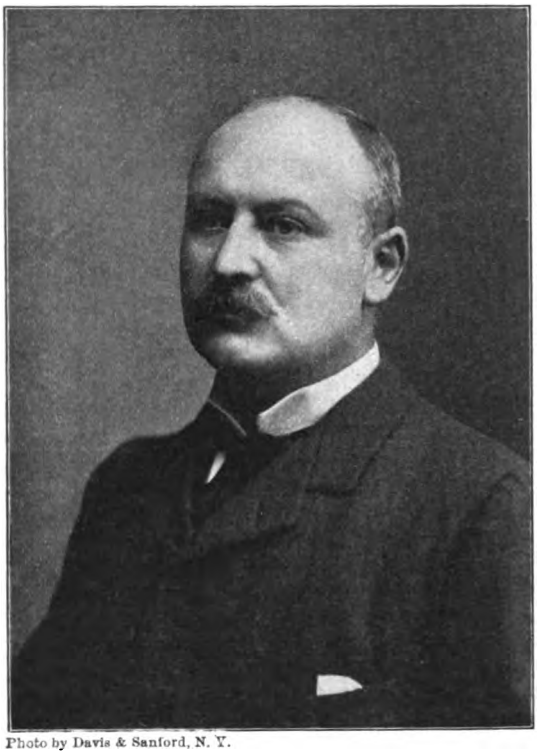

Photo by Davis & Sanford, N. Y.

WILL FIFE, JUN.
Designer of *Shamrock I.*

The methods of the old builder were crude and primitive in the extreme, and not calculated to produce satisfactory results or to lead to a general improvement by disclosing the causes of failure. Each builder confined himself more or less closely to one particular type of boat native to his immediate locality, and to one standard model, merely varying the size to meet the demands of owners. There was no careful planning of the entire yacht in advance of construction, no making of drawings and calculations, but the builder went to work with no better preparation than a mental image of the yacht in his head. In the early days it was considered sufficient to get out a keel, stem and sternpost, and to set up on them a mold cut out by eye to the midship section, this rough skeleton being completed by running light ribbands or battens from stem to stern over the mold and shaping other intermediate molds from them. The whole form of the vessel was thus worked out by the eye and hand of the master builder, these alone being relied on for improvement over previous attempts.

Later on, the block model was introduced, the builder shaping a model, entirely by eye, from a block of soft white pine, using his planes, gouges and spokeshaves, and finishing with glass and sandpaper. This model was available for comparison by eye and also by measurement with other similar ones, and it was, in a limited way, a permanent record of the yacht's form for future study. Its value in this respect was, however, very small, as it was seldom copied accurately in the process of building. As a matter of convenience, the block model was made to represent, not the complete exterior surface of the vessel, the outside of the planking, keel, etc., but the inside of the planking and the outside of the frames. The reason for this was that when the lines were taken from the model and drawn on paper for enlargement to their full size on the floor of the mold loft, they gave directly the true size and shape of each frame or timber, without the added labor of deducting the thickness of the planking. This inside surface of the planking was practically all with which the builder concerned himself in making the original design; from it he made his full-size molds of light boards, and got out in the yard all the frames of the vessel. The exact curve of the stem, the depth of the keel and the whole form of the counter were left to chance, being often determined by the particular log or knee which was most available when the actual building began. The size and shape of the rudder, the location of the centerboard (in American yachts), the dimensions and positions of the spars, were decided on offhand by the builder from time to time.

The yacht when launched proved fast or slow according to circumstances; if the latter, she was brought back to the yard and her keel was cut away or added to forward or aft, her rudder was altered, masts shifted, and sometimes her planking was removed, and, as in the case of the famous schooner *Sappho*, she was "hipped," as it is called, each frame being built out on the bilge amidships to increase the breadth, the planking being then replaced. Like the original planning, the alterations were mere matters of whim or opinion on the part of the builder, based on no reliable calculations, and no

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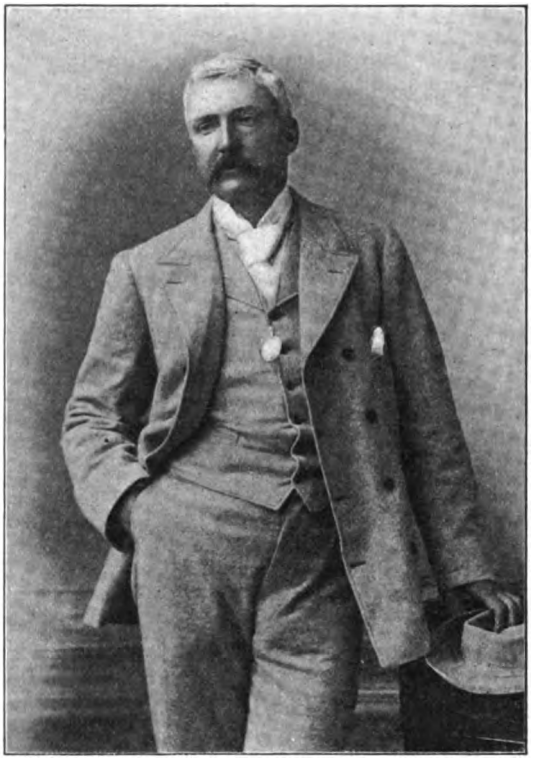
record was kept of them. While there were many builders who were men of ability and ideas, introducing improvements from time to time, and possessing themselves a fair knowledge of the causes of success and failure in their different vessels, such knowledge was considered a trade secret, and it was of little benefit to the general interests of yacht designing. The system itself was a bad one in that each yacht built under it represented only an individual and isolated effort, the failure or success of one yacht had little effect upon the next built, it in no way tended to the elucidation of the principles of naval architecture, and under it there was no attempt to preserve and utilize valuable data.



GEORGE L. WATSON.
Designer of *Shamrock II.*

The first worker in the cause of the systematic designing of yachts was John Fincham, a master shipwright in the Portsmouth Dockyard, England, and a naval architect of ability and high standing in his day. About 1820 he took off the lines of different yachts and made careful comparisons of their dimensions and elements, urging upon both owners and builders the importance of thorough trials of yachts, and of the collection of data and comparison of designs and elements. His work met with indifference on the part of yacht owners and open hostility on the part of yacht builders, who accused him of trying to steal and make public the secrets of their trade. A dozen years later witnessed the opening of the famous crusade of John Scott Russell, the great Scotch naval architect, in advocacy of new principles in naval architecture and new methods in designing, the agitation, though directly applying to mercantile practice, serving to arouse and interest yachtsmen. Never was a victory more freely acknowledged by the loser than that of the schooner *America* over the British yacht fleet in 1851, the defeat of so many noted yachts arousing British yachtsmen and starting an earnest movement for improvement in models and methods. Mr. Fincham again took up the matter, this time with better success, and it became the fashion to have the lines of yachts accurately taken off and drawings made as the basis for the general alteration of the fleet in the line indicated by the *America*, a long fine bow in place of the short bluff one of the old cutters.

Systematic yacht designing, as it is known and practised to-day, owes much to the intelligent and earnest efforts of an English yachtsman, Philip R. Marett, an amateur, who in 1856 published a work *Yachts and Yacht Building.*

The work of designing, or more properly modeling, was still, and in fact remained for many years afterward, in the hands of the professional builder; but a big step was made toward the recognition of yacht designing as a distinct profession. The builders really benefited in spite of themselves by this whole agitation, as they were compelled by degrees to give more attention to matters of design and to modern methods. The iron cutter *Mosquito* was built in 1848 from a design on paper, made by an amateur, Mr. T. Waterman, and the schooner *Titania* was built in 1851 from a design by Scott Russell. Though some of the older builders adhered to the familiar methods, others by degrees fell into the systematic planning and

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drafting of every part before commencing to build.

About 1870 the late Mr. Dixon Kemp, for thirty years yachting editor of *The Field*, took up the work inaugurated by Mr. Marett, taking off the lines of many of the most famous yachts of the day and publishing them, with all the calculations. In 1876 this work took permanent form in the large quarto volume *Yacht Designing*, and two years later this was followed by a smaller but no less valuable work, *Yacht and Boat Sailing*, also treating very fully of the principles of design as well as of practical boat handling. These books obtained a very wide circulation among yachtsmen of all nations and did much to promote a study of yacht designing. While their direct influence on the average yacht builder was small, he being wedded to his old ways and caring nothing for new ones, the indirect influence was very great; owners began to learn through these books what they might have in the way of improved yachts, and to demand such of the builders.

The first step in the change from the old to new was the general adoption on the part of all prominent builders of the accepted methods of planning and drafting; the second was the separation of the two functions of designer and builder, through the recognition of the professional yacht designer. The first of this latter class, who is in no way a builder, is Mr. St. Clare J. Byrne of Liverpool, who, in 1859, while a young ship draftsman with the firm of Laird & Co. at Birkenhead, designed an iron schooner yacht *Albatross*. About 1870 he began to design yachts as a business, turning out some very fast boats of about ten tons, then a popular size for racing. Later on he took up the designing of steam yachts, and he has turned out a great many large and handsome vessels, including the famous *Sunbeam* and the *Namouna* and the *Alva*, well known on this side of the Atlantic; his work for many years has been confined to steam.

Perhaps the most complete connecting link between the old and new in British yachting is the famous yard at Fairlie, on the Clyde, where three generations of the Fife family have built yachts. The founder of the yard, the first Will Fife, was a wheelwright by trade, from Kilburnie, who something more than a century ago, brought up at Fairlie and started to build boats on the beach. From a small beginning he had advanced so far that in 1812 he built the cutter yacht *Lamlash*, and two years later the steamer *Industry*, the seventh steamer built on the Clyde, a vessel of 68 feet length and 17 feet breadth, with the old side lever and spur gearing engine and a copper boiler; only broken up a dozen years since. The second of the name, the present Will Fife, Sr., now a vigorous and hearty old man, is a fitting representative of the old-time builders. Brought up in the yard, first learning his trade and then succeeding his father as its head, he made his first mark with the famous *Cymba*, in 1852, following her with the *Torch*, *Fiona*, *Cythera*, *Bloodhound*, *Neva*, and the big yawl *Condor*. Conservative to a degree according to modern ideas, building even a racing yacht to last half a century (*Cymba* was broken up in 1898), and accepting reluctantly many of the so-called improvements which have increased speed but lessened the quality of yachts, Mr. Fife was always progressive, his new yachts showing improvement over the older ones; unlike the winners of to-day, broken up and forgotten in five years, the old Fairlie cracks were expected to hold a fair place in racing for at least a dozen years. Mr. Fife's masterpiece was the 80-tonner *Fiona*, built as well as designed by him in 1866, a wonder in her day and only last year winner of the Heligoland cup given by the Emperor of Germany.

Mr. Will Fife, Jr., was born in 1858, and received his early training in the yard, but under far more favorable auspices than his father. After being for a time in the big yard of A. & J. Inglis, Glasgow, he took charge of the designing in the Fairlie yard. In 1879 he built for himself the successful little 5-tonner *Cyprus*, in 1881 he designed the *Annasona* and the *Sleuthhound*, and in 1882 the *Erycina*, famous cutters built at the yard. In the latter year he designed the successful 20-tonner *Lenore*. In 1884–5 he was in charge of the Cubzean Yard, established as a fad by the late Marquis of Ailsa, building there from his own designs the steam yacht *Black Pearl*, now in America, and the 20-tonner *Clara*, imported to this country in 1885, and long the unbeaten head of our 53-foot class. Owing to the unfavorable location this venture was unsuccessful and Mr. Fife returned to Fairlie, where he has since carried on the building business, his father gradually retiring from

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active work. Though carrying on both branches together, Mr. Fife is primarily a yacht designer.

Following the *Clara*, the successful *Minerva* came from the Fairlie Yard to America in 1888, with Capt. Charles Barr in command, and led the old 40-foot class here in its best years. Two of his boats, the *Yama* and the *Zelma*, have been very successful on Lake Ontario, and a third, the *Canada*, won what is since known as the *Canada* Cup, in the international match with the *Chicago* in 1896. Among his noted boats are the three *Dragons*, each victor in turn in the old 20-rating class, the 10-raters *Iseult*, *Isolde*, *Ailsa*, *Saint*, *Senga* and *Senta*. The yachts from the Fife yard, whether designed for racing or cruising, have always been noted for their seaworthy qualities, both in design and construction. While the recent development of yacht racing has necessitated the production of extreme racing machines there as elsewhere, the whole policy of the yard in this generation, as in the past, has been toward the construction of a desirable class of vessel.

George Lennox Watson was born in Glasgow in the same year in which the schooner *America* was built and raced; his father, Dr. Watson, was a noted physician, his mother was a Miss Burstall, daughter of Timothy Burstall, an inventor, and a contemporary of George Stevenson, builder of the locomotive Rocket, and engaged in similar work. At the age of sixteen, Mr. Watson, whose tastes as a young boy inclined toward the water and boats, entered the famous shipyard of R. Napier & Son, of Govan and Lancefield, on the Clyde, as a draftsman; his brother, T. Malcolm Watson, choosing house architecture as a profession. From Napier's yard the young draftsman went to that of A. & J. Inglis, at Pointhouse. While here, at the age of twenty, he made his first attempt at yacht designing and building, strange to say, in a wide and shoal boat of the American type, though with a fixed keel, by name *Peg Woffington*. She was a queer little craft, with a ram bow and a strong tumble-home to the topsides, and very hollow water lines aft as well as forward; sad to say, she did not prove a success. In 1875 he designed the 5-ton racing cutter *Clotilde*, beating the Fairlie 5-tonner *Pearl*, then the crack of the class on the Clyde. In the following year he designed another 5-tonner, *Vril*, building her himself with two other enthusiastic amateurs, John Laurence and J. B. Hilliard, part owners. She was built in a corner of the Henderson yard at Meadowside, with the assistance of a couple of ship carpenters. Sailed through the season by her young owners she proved the head of the class, no small honor as it then stood. In 1877 he turned out for his friend Robert Wylie of Glasgow, the 10-tonner *Verve I*, an odd-looking craft, with bluff bows and a short counter, and in the following year another ten, the *Quiraing*. This yacht was raced in the 10-ton class and made more than a local reputation for her young designer, paving the way for the famous *Madge*, built in 1879. In her first year *Madge* started in 24 races, winning 22 first and 2 second prizes of a total value of £395, her second season's win being £291.

Mr. Watson was now fairly launched as a yacht designer; he had been personally concerned in the building of the *Vril* and several other yachts, but had never made a business of yacht building, from the first devoting himself solely to designing. His first large commission came in 1880, when he designed the racing 90-tonner *Vanduara*, of steel, for Mr. Stewart Clark, who won with her £1,030. In 1882 he designed the iron steam yacht *Sweetheart*, of 121 tons, but his first important venture in steam was in 1885, when he designed the *Amy*, of 812 tons, following her with the *Mohican*, of 704 tons, in the same year. Since then he has devoted his time to sail and steam alike, designing in all over 200 yachts up to the new *Lysistrata*, for Mr. James Gordon Bennett, launched last year, a steam yacht of 2,082 tons. It can safely be said that the Watson steam yachts represent the highest standard of style throughout the world. Like Mr. Fife, Mr. Watson has been in a measure conservative even in the designing of racing yachts, always turning out as good a craft, both in design and construction, as the existing rules and conditions would admit.

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THE FUTURE OF THE GOLF CHAMPIONSHIPS

By Arthur Pottow

THE time is altogether past for discussing the permanency of golf in this country, the proof of its durability being so overwhelming. What is also apparent is, that the game has now advanced to the position of a sport, to be regarded and legislated for accordingly. No longer do we look upon golf as a social pastime merely. The social aspect of it naturally will always remain, but in public interest and in the estimation of players it will be subordinate. Except in a few of the papers of a sensational turn we are no longer served, as an item of interest to golfers, with the doings on the green of a man who cannot play golf but who happens to be a millionaire or a public character, or with the charming exhibition of how not to play the game by a lady who has the distinction of being a leader of society.

Golfers, and there are hundreds of thousands of them now, want to see and read about the best players, and, exactly as in other games, experts, whether amateur or professional, are those who attract the most attention. Having then decided that golf must be looked upon as a sport, it is only natural to Americans that they should wish to excel all others who play the game. It is quite clear that we do not at present. Leaving the professionals out, for they are nearly all imported, we know that our best amateurs do not rank with those of Scotland or England. We were able to get a line on the relative merits of the home and foreign golfers to some extent through Mr. Findlay Douglas, who has always said that before coming to this country he was a good way removed from the front rank men on the other side. But this standard was not a very reliable one. Mr. Douglas, apart from the natural modesty which causes a man when talking about himself to indulge in self-depreciation, may have and very probably has improved his play since he came here. The visit to Great Britain, however, of Mr. Travis, who won the amateur championship in 1900, has resolved doubts into certainties. At the time of writing, he has not met one first class player on the other side, and yet he has not, so far as cable reports show, won one game. His best fight seems to have been with Mr. W. Bruce Hunter, a nephew of old Tom Morris, the pair finishing all even. Now Mr. Hunter's status is pretty well defined. Prior to coming here, Mr. Douglas conceded him six strokes, and though he has doubtless improved he still has a handicap of four allowed him by the St. Andrews Town Club to which he belongs. The proof then that our golfers are inferior to Scotch and English players appears to be conclusive, and it is not reasonable to suppose that there is any permanent intention on the part of Americans to content themselves with such a condition. We have triumphed, time and again in other sports, and there are no insuperable reasons why we should not do so in golf.

The question then is, how is the best class golf to be produced? and it seems that to such a query there is a very plain answer, viz.: the establishment and maintenance of golf courses which are of the highest standard. On these alone should championships be played. What this standard should be is tolerably well understood, though it would be impossible to lay out a course to please everybody. The long driver has an idea that the bunkers should be placed back; the short driver thinks they should be nearer the tee; the man who lofts his approach shots wants the greens protected, which is not agreeable to the golfer who relies on his running-up approaches. But these are details. The laying out of a championship golf course in respect to these matters must be somewhat in the nature of a compromise. The main essential is the question of length, and all are agreed that every hole should be able to be reached in one, two or three full shots. The fair green must afford good lies, the putting greens must be true and large, and there must be enough hazards through the green to call for play of championship class, for

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it is probably true that it is the course which produces the golf.

The system which now prevails in the selection of courses for the various championship meetings does not seem to be one under which courses up to the championship standard must necessarily be selected, as undoubtedly they should be. We all know the method. At the annual meeting of the United States Golf Association, there are usually one or more applications for the championships from certain clubs. Should there be only one club applying for any particular championship as a rule the event goes to that club. If there is a contest it is decided by a majority vote; the voting members, or at least a considerable number of them, having nothing more than hearsay knowledge of the merits of any particular course. So far as the Amateur Championship is concerned, its fate has been fortunate, the courses selected being generally up to a good if not the highest standard. There has generally been some competition for this event from clubs having good courses. The same cannot be said of the Open Championship, and this is singularly unfortunate, for looking upon golf as a sport, this championship is the most important event of the year. The professionals are by no means satisfied with some of the courses that have been chosen, and if it is true, as alleged, that more than one player has had to use his niblick on the putting green, there would seem to be some reason in their complaints.

Although the amateurs have fared better, yet, under the present system, the highest class golf does not receive the encouragement to which it is entitled.

This principle should be laid down and adhered to—that a championship course should not merely be up to championship standard at the time the event is played, but that it should practically be at the same level all the time. It is not right that a course should have to be specially prepared, except so far as the condition of the turf is concerned. The distances should always be of championship length, the greens always sufficiently large, and the hazards practically as they would be during a championship contest. All this reasoning points to the adoption of the English system or something like it, namely the selection of a certain number of places at which the men's championships are to be played. A different standard may, perhaps, meet the requirements for the Women's Championship, so this last named fixture may be left outside the scope of the proposed scheme for the present. There do not appear to be insurmountable difficulties in the way, for whatever may have been the case when the championships were originated, certainly we have enough courses now from which a perfectly satisfactory selection could be made. It seems that six courses ultimately would be sufficient to provide for the rotation of events without the fixture proving too burdensome for any one of the clubs to undertake. A start can be made with less than six clubs, the U. S. G. A. accepting certain courses in the beginning as of championship standard, and later passing applications from other clubs after due investigation and examination. This was done on the other side, St. Andrews, Muirfield, and Prestwick, all Scotch courses, being first selected; Hoylake and Sandwich were allowed to come in afterwards when the game had become established in popular favor in England. Our aim should be to have three eastern and three western courses selected for the championships. We are not afraid of a little travel in this country, and so no acceptable course here is likely to share the fate of Westward Ho! which was not included in England, merely by reason of its geographical remoteness (200 miles from London) from the golfing centers of England and Scotland!

The question of expense should not stand in the way of the proposed reform. Indeed, if the course is always kept up to the championship standard, the bulk of the expense that now attends the getting a course in order for a championship meeting would be spread over a series of years. The actual expenses of the championship meeting in reality, if things are properly conducted, should be very small, as they are in England. The fact should be kept in mind that the players who attend these meetings are there primarily for business, the fight for the championship, and there is no need whatever for fireworks or side shows of any kind. The U. S. G. A. should frown on all such additions, and thus no club would be able to say that it could not afford the expense of holding a championship tournament.

If this system was adopted it would be impossible to say that a certain course

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had been picked out for a championship for the benefit of a certain player, the distances and hazards being arranged so as to suit his game. Absurd as it may seem, such suggestions have been heard. It is not necessary to the carrying out of the plan that the championship courses should take the various events in strict rotation. There may be practical objections in a given year which would preclude one course from having a championship, and the U. S. G. A. would naturally consider this. But every course ought to be prepared to take its proportionate share of the events in a specified number of years; and with six courses to select from, the task of allotment should not be very difficult.

The existence of these championship courses would produce a state of things similar to that which exists on the other side. Golfers who considered themselves of championship class would get into the habit of employing their vacations by paying visits to these courses; it being premised as part of the conditions of admission that every facility for playing over them could be afforded to visitors. A player of an ambitious turn of mind —and none other is ever likely to play high class golf—would then have abundant opportunity to improve and develop his game. The mysteries of a particular course would no longer be, as they are now at championships, a sealed book to the great majority of the players; for almost every man who stood any chance of success would be as familiar with the peculiarities of a selected course as the members of the club itself. Thus all the leading players at these championships would meet upon practically equal terms. It is is true now, that after a course is selected for the championship, golfers may visit it, and probably get facilities to play over it; but in the majority of cases, it will not, until shortly before the championship, be the same course over which the event is to be decided. It is for this reason that a championship course must be practically at the same standard all the time. With our leading men playing the year round at the same courses, we and they should be able better to appreciate how the cracks stood with regard to each other. Our interest in the game would be increased by comparing the doings of one man with another over the same ground, and their spirit of emulation aroused, with the result that better golf would be played. When we hear nowadays of Mr. Travis making a practice round of 79 at Garden City, of Mr. Douglas playing the 18 holes at Nassau in 80, or Mr. Lockwood making two rounds at Allston in 69 we have no means of comparing the merits of these performances.

There seems to be no doubt that the proposed change would result in better courses than under the present system; not merely better championship courses, but a better general average throughout the country. In the first place there are a number of courses with championship possibilities. It is certain that amongst this class there would be found some clubs whose members would spare no effort in making such alterations and improvements as would enable them to enter the selected class and thus a spirit of healthy rivalry would be created. Again, players would visit championship courses from all parts of the country, which would soon become famous, and going home they would seek to improve the greens over which they were in the habit of playing—we should see fewer courses than we do now where five or six of the nine holes are about 200 yards in length. Distances generally would be better, hazards would be placed more judiciously, and greens better kept; and all this is absolutely essential if we want to make our leading players equal to those of Great Britain.

The playing for the championships is another matter of great importance that well deserves consideration. The United States Golf Association was formed in December, 1894, the first amateur championship under its auspices being held at Newport in 1895. The affair was decided by match play at 18 holes, except for the final which was at 36 holes. At Shinnecock Hills, in 1896, the qualifying rounds of 36 holes medal play were introduced. This system was continued at Wheaton in 1897, but at Morris county, in 1898, the match play throughout the tournament was at 36 holes, and so it has remained until the present time. The Open Championship, first played under U. S. G. A. rules in 1895, has always been at medal play only. It was at 36 holes for the first three years, being then increased to 72, at which figure

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the play now takes place. It is evident from this that the laws governing the championships are not unalterable like those of the Medes and Persians, and so it is quite in order to consider the present rules under which the contests are played and to suggest amendments. First then with regard to the qualifying round—what is the object of it? It seems now to have but one, *i. e.*, to reduce the number of the competitors on the first day, so there shall be time for the surviving thirty-two competitors to play rounds of 36 holes each for the rest of the week. Assuming that there were 128 starters for the Amateur Championship, a number that is quite likely to be reached, it would, in the absence of a qualifying round, be impossible to finish the play in less than seven days. So the qualifying round achieves its principal, and so far as some of us think, its only object, in enabling the final round of the tournament to be played on the sixth day. It is difficult to see what other object it serves than this. The contest is primarily a struggle for supremacy at match play, and thus it would seem to be highly absurd to exclude any one from the real contest because of a failure to qualify at play of a different nature. It is not worth while to enter into a discussion of the relative merits of medal and match play as a test of golf, but there is no question at all as to which is the more interesting. At Garden City last year no spectators followed the play on the first day, the qualifying round. And that this view is taken by the players themselves is well known. One ex-champion was heard to say at this same tournament at the conclusion of the medal round, "thank goodness, that rot's over;" and at Apawamis, at the last Metropolitan Championship tournament, many players expressed themselves to the effect, that with less than fifty starters, it was absurd to have 36 holes medal play to decide on the qualifying thirty-two. It is true that the Open Championship, both in this country and in England, has always been at medal play, and has drawn large crowds. Of course to see the best of the professionals, lovers of the game will always attend, no matter what the style of play may be, but it is certain that the interest would be vastly increased if the professionals met each other at match play. Indeed, on the other side, so far from medal play being in favor, a proposal to introduce match play into the Open is being favorably received.

The qualifying round being useless as a test of golf, as any man who had the slightest possible chance of winning the Championship would easily get into the thirty-two, why should it be retained? There is one simple way in which the tournament could be finished within reasonable time without a qualifying round and that is by reducing the match play rounds, with the exception of the final, to 18 holes. In this year's Amateur Championship in England there were 116 entries, but the play only took four days. It does not follow of necessity, that what they do on the other side should be copied by us, but a system which is considered to be a test of the golfing skill of such players as Mr. Hilton, Mr. Low, Mr. Laidlay and others of the same class must certainly have something to recommend it. Many of us who have been at previous championships have become convinced that the winning of a championship under present conditions is as much a test of endurance as of skill, and that is why we seek to revert to the former arrangement of 18-hole matches. Some fears have been expressed that if the qualifying round is abolished, it will be impossible, owing to the number of starters, to play off the championship in the time now allotted to it; but there is good reason to believe that if there was no medal play round the entries would decrease. Many of the players now enter who have not the faintest chance of winning the championship, and some of these would be kept away if they realized, as they must, that they would be put out of the tournament in the first round. So the probability is that the entries would show a decrease, and the class an increase. That some very good men would fall early in the fight through the luck of the draw cannot be gainsaid, but at least we should have from start to finish a series of exciting matches full of interest, instead of the present arrangement whereby the early part of the tournament offers but little attraction to a lover of the game. The chief consideration should always be improvement of class.

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THE BLACK BEAR AS A CHARACTER STUDY

By Ed. Mott

WHILE the black bear can and does on occasion rise to the hight of tragedy, comedy is his favorite line. He is the humorist of the brute creation—a born low comedian. He has the liveliest sense of the ridiculous, and is always looking about him for ways and means to indulge it. He is comic even in captivity. Wherever there is a bear-pit, men, women and children will gather, jostling to get nearer, craning necks to see better, and always manifesting their amusement in smiles and grins and guffaws. It is not because there is anything grotesque or ludicrous in the natural form or feature of the bear that people do him the homage of pleased attendance at his levees. On the contrary, there is something impressive and dignified in the presence of a perfect specimen of the bear when he is not acting. If it were oddity and comicality of make-up that the people at menagerie or zoo, big and little, young and old, gathered together to seek to be amused by, they would go to the angular and knobby camel, or the capacious-mouthed hippopotamus, excruciatingly clad in his misfit skin, and simply laugh themselves sick. They crowd all the avenues to the bear-pit not to see the bear himself but to see what the bear does. And the bear never disappoints them.

No one ever tells funny stories about the hippopotamus or the camel, but the humor of the day is rich with ludicrous doings of the black bear, and he has even at last invaded the realms of polite literature and illustrative art, and prompts the masters of pen and pencil to depict him in all the prodigality of his resources as a character study. But neither the imagination of the bear story writer nor the fancy of the artist has conceived anything funnier to tell or picture about their ever-humorous subject than things the bear himself actually does. And comical as the bear is in captivity, he is much more comical in his native wilds. He has more opportunity there to develop his comic talent. And he is original in his humor. He is always thinking up new parts to play.

As a rule, the imagination of the average backwoods dweller and his willingness to exercise it are as much a part of his constitutional make-up as is his ability to eat. The remark that a caustic old 'way-back friend of mine made once in referring to a story-telling neighbor of his, might be well applied to the 'way-back narrator as a class. "I don't want to say that Jim will lie," was the remark, "but seems to me that if I went round tellin' the yarns that he does I'd wear a lightnin' rod!" But there are among these delectable Homers of the woods and things woody, men who are both by bent and talent incapable of fabricating their quaint and curious chronicles of the hills and forest, and the tales of such of these give pleasing evidence of what odd and grotesque—as well as tragic—things the bear really does among its native haunts; emphasizing the fact that the truth of these is indeed stranger than the fiction of the others. I am reminded of more than one of these truthful observers of the ways of bears, and particularly of Laroy Lyman of Potter County, in Pennsylvania. He was a latter-day Natty Bumpo, save that he combined with the qualities that marked the hero of Cooper's romance as an unsophisticated child of the forest, the qualities of a man who recognized and performed the duties of a citizen in civilized walks of life—as no doubt Natty Bumpo would have done had there been civilized walks of life convenient to him at the time he played his blameless part in life.

Laroy Lyman was a natural woodsman, learned in all the ways of the woods and of the creatures that dwelt in them. Particularly was he wise in the ways of bears, which were an ever-varying study to him, and a constant wonder. The repertory of his recitals of the amazing things that bears had done within his personal knowledge was large. He particularly loved to tell about a wise and jocular old bear he had long been trying to circumvent, either by trap or gun, and which had defied him, and belittled his skill in the use of both. On one occasion he had set, in his most dexterous manner, a trap

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for the bear, and enclosed it with a fence of rails on three sides, depending on the well-known curiosity of its kind to lead the bear into the enclosure, in which case the chances were ten to one that the bear would step on the hidden trap and be caught; past experience with this bear having taught him that the placing of meat or honey or anything else as bait to tempt the bear to its undoing would only be to warn the smart old ranger of the danger that beset him. To stimulate the curiosity of Bruin, the trapper had stuck an old beaver high hat on a stake, and fastened the stake in the ground just beyond the trap within the enclosure. The morning after the setting of this trap, Lyman went out to look at it and see what luck he had met with from the application of this original idea in the luring of bears. A few rods from the spot where he had set the trap an old road wound through the woods, and along this the trapper was walking on his way to his trap. As he rounded a bend in the road he was brought to a sudden stop by an unexpected and surprising sight. On a big pile of rails or saplings that lay straight across the road, sat a bear on its haunches, and cocked on its head was the beaver hat that Lyman had fixed in the bear trap enclosure. It did not take the quick eye of the woodsman a moment to discover that the rails were the ones he had placed so carefully around the trap, and he knew instantly that the bear had detected his trick to catch it and at once proceeded to mock the smartness of its foe. That the bear was waiting for the coming of the trapper the latter was well satisfied, for the moment the jocular old beast saw Lyman come round the bend in the road it rose, took the hat from its head, put it on the top rail, and deliberately sat on it, smashing it flat. The bear sat an instant, plainly enjoying the trapper's astonishment, and then scrambled down behind the rail pile and disappeared in the woods before Lyman could recover sufficiently to shoot.

Another time Lyman was on his way home from a visit to a skilfully arranged deadfall trap that he had set for this same cunning bear, near which there was no sign of the bear having come. Lyman was walking along that same old wood road, easing himself by means of a long stick that he had picked up in the woods. He was consoling himself with the thought that perhaps the bear had not been in that part of the woods since he fixed the trap for it, and that it might yet fall victim to his wiles, when he happened to glance back over his shoulder and saw that identical bear following on behind him, carrying a long staff just as he was carrying his, and mimicking to perfection the peculiar swinging gait that was habitual to him! When Lyman stopped and turned around in the road the bear stopped and turned too, and retreated, maintaining the same mocking gait, and handling of the staff, and looking back over its shoulder every few steps, with its mouth open, for all the world as if it were laughing in the enjoyment of its joke. Lyman could have shot the bear, he said, before it got away in the woods, but after that almost human performance he felt that the killing of the bear would be but little less than murder and he, never raised his gun. He gave up trapping for that uncanny beast after that, believing that in no other way could he disappoint it.

Col. Noah Parker, of Gardeau, Pa., whose reputation as a veracious chronicler of backwoods lore is well-known throughout northwestern Pennsylvania, tells a story which tends to prove that the bear also enjoys the humor of a situation even when it is at his own expense: "A backwoods farmer in that vicinity had a ram so vicious that the farmer had put it alone in a pasture lot, which was enclosed by a stump fence. The ram's ugliness came on by spells, and at such times he worked his frenzy off by savage attempts to butt down the big stumps of which the fence was made. Everybody wondered why the owner of the ram did not shoot him—but that has nothing to do with Col. Parker's story. The Colonel was hunting thereabout one day, and coming out of the woods upon this back pasture where the 'rantankerous' old ram was kept, discovered the ugly sheep indulging his temper by a furious assault upon one of the stumps. Col. Parker leaned on the fence on the opposite side of the field to enjoy the exhibition, and had stood there but a moment when he saw the head of a bear rise above a stump, not more than a hundred feet away from where the ram was easing his mind in his astounding way. The ram did not see the bear, and as the bear gazed at the ram's performance, the Colonel could see by the expression on

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its face that Bruin was intensely amused. Soon the head of another bear appeared above the stump where the first bear's had appeared. Immediately a pleased expression rested on this second bear's face, too, and the two stood there in evident enjoyment of the fun. Being well acquainted with bears and their ways, Col. Parker felt satisfied that those two would not be content to be merely passive enjoyers of that ram's exhibition, and he chose to wait and see what element of variety they would inject into it rather than to shoot either of them, as he might easily have done. So he dropped behind the stump to avoid discovery, and peered around it to see what would follow.

"Presently the two bears climbed quietly over the fence into the field. The ram was so fiercely intent on his assaults on the stump that he had not seen them, and it was not until they had come slowly toward him and stopped within a few feet of the vicious old fellow, that he became aware of their presence. Then he turned suddenly and faced them. They instantly rose on their hind feet. If the ram had been furious before, his rage simply knew no bounds when he saw the two bears standing there so aggravatingly in his domain. Lowering his head, and with an ugly 'blatt,' he hurled himself toward the bigger of the two bears like a cannon ball. It is the Colonel's opinion that if the ram had struck the bear at the rate he was going the tough hide of the bear would have been no barrier to the ram's head passing on through to Bruin's interior, but the bear stepped deftly aside, avoiding the savage rush and, turning quickly, seized the ram by each hind leg near the hoof. Holding him thus, as one might hold a wheelbarrow by the handles, the bear pushed the ram all over the lot. The other bear meanwhile manifested its keen enjoyment of the joke by dancing up and down on its hind feet, and by an expression on its face that indicated as plainly as dumb expression could, that if there was any way by which bears might break out with laughter, such risible explosion would be heard from this bear as would make the woods ring.

"After using the ram as a wheelbarrow for some time, running him round in a circle, the bear dropped him and stepped back to see what the next move would be. O, but that old ram was mad! He projected himself first at one bear and then at the other, and they would simply jump aside and laugh at him. He was so blind with rage that he couldn't see they were only having fun with him. They put him through the wheelbarrow act again, and when they dropped him this time he went quietly away and lay down. After a while, evidently thinking they had extracted enough fun out of the cross-tempered old sheep, the bears turned and started to climb the fence to go on their way about other business. The bear which had been the onlooker at the fun scaled the fence, and the other one was just pulling itself up to the top of a stump, when the ram jumped to his feet, shot the space between him and the bear like the wind, and caught the bear right where its tail was fastened on. The shaggy joker rose in the air above the stump, turned a somersault, and came down on the other side of the fence. I climbed up on the stump behind which I was hiding, and looked over. The bear which the ram had helped out of the field was sitting up and wiping out of its eyes the mud it had ploughed into them; and although it limped not a little when it got up and started for the woods, I could see plainly it was enjoying with its companion bear the joke the ram had played upon it. That exhibition," says the Colonel, "cost me a bear, and maybe two, but it satisfied me that bears are humorists, and no mistake."

But while all backwoods observation agrees that it is its choice to be best known in comedy, the bear can be tragic, and terribly so. Laroy Lyman once saw a she bear, followed by two cubs, come down off the hills and approach a creek a short distance below where he and two other men were standing, and where the water was deep. The old bear stopped a moment and gazed at the two men, and then plunged into the creek. The two cubs followed her, and swam boldly toward the other side with her. One of the cubs seemed to be stronger than the other, and swam well up with its mother, keeping almost head and head with her. The other one fell a little behind, but kept bravely on. The old bear clambered up the bank when she reached the other side of the creek, the bank being quite high and obstructed somewhat by projecting roots. The one cub followed her promptly and without difficulty, and trotted along in pace with its mother's sweeping stride, but

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its less vigorous companion could not clear the obstructions on the bank. It struggled bravely but vainly for a foothold. Aware that its mother and the more fortunate cub were going right on and leaving it behind, it began to cry piteously. The old bear and her lively cub had swung along perhaps fifty feet from the bank. Hearing the cries of the weakling cub, the mother stopped and looked around. Not seeing the lagging one, she flew into a towering rage. She snapped her teeth together, growled savagely, and hurried back to the bank, keeping watch all the while on the three men. When she came to the edge of the bank where the cub was struggling and whining, she reached down with one paw, grabbed the cub, and killed it with a single blow. She then tore it to pieces and scattered the fragments of its little carcase in the creek. With an ugly showing of teeth at the amazed spectators of this furious exhibition of her rage at a weakling which endangered the life of the other cub as well as its own, she turned and strode rapidly back to where her other cub was awaiting her, and the two disappeared in the woods.

The old woodsman's deduction from this tragic act of the bear was that, apprehensive of pursuit by the men, she was endeavoring to put, without delay, as much distance between them and herself and her cubs as she possibly could. When she discovered that the one cub was delaying the flight by its inability to clamber up the bank of the creek, her temper was roused, and, concluding that even if she helped it up the bank, this weakling, if they were chased, might hamper the retreat and place them all in danger, and, furthermore, determined not to leave it to fall captive to her foes, she tore all maternal feeling from her breast and the offending cub to pieces at the same time. "Yet," said Lyman, "if she had found any one of us, or all three of us, attempting to take the cub when she returned to deal heroic punishment to it, she would have defended it against us, and given up her own life, if necessary, in efforts to save it."

Another trait that marks strongly the individuality of the black bear is the elasticity of its appetite and its comprehensive palate. There is nothing in the animal or vegetable kingdom that will not appeal to the one or tickle the other. This bear will kill a yearling calf or capture a field mouse with equal indifference. If a pig or a sheep is not handy to his reach he will dine on a colony of ants or a nest of wood grubs. He will feast on dainty birds' eggs or sweet stores of wild honey and on the foulest carrion with like gusto. He will fish for the savory brook trout, but at the same time snap up any warty toad or slimy lizard that may happen along that way. He will seek the luscious wild plum when it has ripened, or the wild grape among the branches where the vine clambers and bears its fruit, but will not miss opportunity to make food of any snake that may lie in ambush for birds that come to peck at plums or grapes. And he is unique in his irrepressible inquisitiveness—a trait in his character that is constantly leading him face to face with disaster, and still he indulges it. It seems simply out of the question for him to resist the promptings of his innate curiosity, and so he pokes his nose around where wisdom would urge him not to, with the result that there is more bear meat put on the market and more bear stories to tell than there otherwise would be.

Thus, taking him all in all, there is no wonder the bear has an acknowledged place as a striking and entertaining character in literature and art. He is of unceasing human interest. His possibilities as a subject are without limit. He is ever startling, amusing, original. It can be said of no other living creature, in the language of a backwoods savant: "If you want folks to believe you when you tell 'em things about bears, tell 'em lies, 'cause if you tell 'em the truth nobody ever *kin* believe you!"

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THE "KID'S" FIRST PRAIRIE CHICKEN

By Charles H. Morton

THE Kid sat on the dusty feed box, and watched with admiring eyes while Jackson performed miracles with the double harness, an intricate tangle of leather network, buckles and rings. Almost as the boy drew breath, this confusion of trappings was thrown over the backs of the pair of well-conditioned bays, and as the lad's opening mouth expressed his evident wonder at this feat, the horses stood ready to be backed against the double-trees of the two-seated wagon that was to take the Kid's father, Jackson and himself miles away over the rolling prairie land.

It was one of these beautiful, cool, hazy mornings in September, such as one never sees outside of Kansas. The softness of the pure air, the deep stretch of the sky, and the even billowy swell of the upland charms and contents the soul. Great flights of blackbirds and their somber cousins, the restless cowbirds, were swinging across the hills, undulating and chattering, and filling the trees with their glossy forms. Doves were cooing in the walnut trees that shaded the dusty roadway, or taking their arrow-like way over the country. Little bands of robins flew overhead and the woodland resounded with chattering, busy bird life, beginning preparations for a long, weary journey to the distant South. Above the stripped cornfield a little shrike hovered, with attentive eye, meditating trouble for some unlucky field mouse. All these loose leaves from Nature's open book interested the Kid but little, for his mind was busy with the great affairs of the day before him. The iron of doubt had entered his soul and it was all Jackson's fault. The six plover he had bagged yesterday afternoon—they swooped down upon the pasture eager for fat grasshoppers, and they were quite easy to shoot — only brought from Jackson a grin and the remark: "Wait till a chicken jumps up, and then see what that snipe-shooter's good for." A most discouraging remark! Jackson was always making discouraging remarks about that sixteen-gauge. The Kid's other name was Albert Stevens Burton, but he somehow lost his identity when he first met John Jackson, the manager of his father's ranch.

But Jackson was yet to be enlightened in the matter of hard-hitting, small-bore shotguns by this boy of sixteen, who knew well how to handle the same, for the Kid was no mere novice in the art of wing shooting. He had, during his two years' experience, gained a practical knowledge of gunning under his father's guidance, that was a source of great satisfaction to Mr. Burton. He had shot Wilson snipe in the marshes east of his native town, and spent many hours among the quail in the hickory and hazel growth. His name was entered on the membership roll of the gun club, and after a little coaching, the Kid's sixteen-gauge could be depended upon to break almost as many clay birds as the Doctor's twelve-bore —and the Doctor held the club medal.

However, up to the time of his introduction to the reader, the Kid had never hunted the prairie chicken. This grand game bird of the plains, once so plentiful, had utterly vanished from the rolling lands of eastern Kansas. The Kid's father thoroughly enjoyed the recreation of hunting, and being wealthy enough to gratify this desire, and fortunate enough to own a large section of land in the heart of the chicken country in central Kansas, he made it a point to spend several weeks on this farm during the shooting season.

The sun's red disc was just peering over the eastern horizon as they started. They had risen hours before, and eaten by lamplight, and the Kid had placed his gun-case and hunting-coat, with the pocket stuffed full of shells, in the wagon bed before his father finished the second cup of steaming coffee.

As the wagon rattled along the busy pointer worked untiringly across the fields.

"Oh, he's a goer," said Jackson, "and a stayer, too. If he finds a bunch of chickens, he will hold 'em for a week. There now! He's winded something; you'll see him draw to a point in a minute. Here, I'll have to tie up. He's got 'em!"

The three were over the wheels and push-

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ing shells into their guns as the dog halted stiff and still, nose outstretched, and one hind foot raised as though he feared putting it down would alarm the hidden birds.

"Funny thing 'bout that there dog," Jackson remarked, as he wet the end of a cartridge in his mouth, "he 'most always lifts a hind foot 'stead of a forepaw when he points."

"Well," said Mr. Burton, "I don't care which foot he uses, if he only works like this all the time."

Young Master Burton was not studying the actions of the well-trained animal. The Kid, after looking at the ponderous ten-gauge wielded by Jackson, became once more doubtful of the efficiency of his small gun. "Jackson said it would be a good gun for snipe or bumble bees," he said to himself, and the remembrance of Jackson's marvelous handling of the double-harness recurred to him for the hundredth time. Surely Jackson was a man whose words were wisdom. Chickens were big birds, indeed, and the Kid wished his gun was a ten-gauge like Jackson's.

"Albert," said his father, at this crisis, "load with sixes; you will be more certain of killing, as they may be wild."

So the Kid, following the light of inspiration, substituted for the loads of number six he had already placed in the chambers, a couple of wicked shells, goose-loads, containing three drams of nitro powder, and an ounce of heavy shot. Loads like these had more than once made his shoulder sore, for the recoil was tremendous. Mr. Burton wanted his boy to kill his first prairie chicken and he thought it might better the light gun's execution if a heavier load was substituted for the number eight shot he supposed the Kid was using.

"Now, Kid," said Jackson, "step right up behind the pup; it's your shot. Go on, we'll back you," he added, with an expansive grin. That grin dissolved every atom of doubt, and dispelled every haunting fear that the "bumblebee-gun" was too small for chickens. Jackson's grin, however good-natured, made the Kid wrathy, and he mentally vowed if he missed that shot, he would never fire another. "I am going to hit, or bust," he told himself, as he stepped slowly forward, his gun poised in readiness. He was a graceful lad, and his father and Jackson admiringly watched his movements. Better for them both had they been on the alert for business.

"Bur-r-r-r!"—"Whiz-z-z!" There burst from the long grass, almost under his feet, not one chicken, but two, the parent birds of the bunch found by the dog. Had two cyclones risen from under his nose, the Kid could have hardly been more startled. His tensely-strung nerves seemed to jangle as if a rude hand had swept over them in hideous discord. The hunter's instinct dominated even nerves, however, and as his shoulder flinched under the vicious kick administered by the right barrel, the first chicken fell limp and dead in the prairie grass, while the air was filled with flying feathers; mute witnesses of the deadliness of that "goose-load."

Crack-crack, the gun of the Kid's father resounded in vain effort to stop the rapid flight of the second chicken, and boom-boom, the black powder loads of Jackson's ten-bore smote on the morning air like the discharge of a mountain howitzer, but still the chicken flew unscathed.

Albert Stevens Burton grasped the situation. Here was his chance to "get even" with Mr. John Jackson. His eye glanced along the matted rib of his maligned weapon, and at the ringing report, the tough old bird, cackling in derison at the combined failure of two experienced gunners, dropped head-down to the brown grass, sixty long yards away.

The Kid alternately felt his shoulder, his nose and the right side of his face to see if they were still there, and wondered why his hand shook so; he was not the least bit excited.

Mr. Burton was slowly reloading, his eyes mechanically following the transit of a dozen chickens startled out of their wits by the sudden bombardment, but his thoughts were dwelling upon the shorter flight of the first pair. He was proud of that boy of his, and his smile showed that fact plainly.

"Wall," said Jackson, suddenly, throwing down two empty, smoking shells with violence, "if the Kid ha'nt wiped our eyes good and plenty, I'll be derned! Done it with that there little grasshopper-shooter, too! By the great Gee-whiz!"

"That was a very long shot for sixes, Albert," said Mr. Burton.

The Kid only chuckled, as he watched the dog retrieving his first prairie chicken. "Snipe-shooter," he murmured.

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THE NEW COUNTRY LIFE

By Leonidas Hubbard, Jr.

FEW there are of us who have not at some time had mental pictures of what country life might be if all country men were well to do, and educated and refined; if farms were always clear of weeds, if horses were all well bred and well cared for, and if farmers all had leisure to enjoy the beauties about them; and we have concluded that our dream was too nearly the ideal, too nearly a return of the golden age to ever be realized. We have seen good farms, it is true, and cultured farmers, and well kept horses, but just across the line fence we were certain to see a tumble-down barn belonging to a ne'er-do-well in whose fields and along whose roadside weeds ran riot. But twentieth century wealth and twentieth century sport seem likely to make our dream real. In fact it is real now and to behold the reality we need but go to the vicinity of any city where sports of amateur horsemanship have won a firm place. The New Yorker will find the community of our dreams centering about the grounds of the Meadow Brook Hunt Club, on the plains of Hempstead and in the hills to northward. Here are farmhouses with modern conveniences, stables that shelter polo ponies and thoroughbred hunters, barns with the most approved carriages—including the automobile. And here are men and women who know how to live in the country and enjoy its blessings.

The public at large perhaps imagines the Meadow Brook Club to have a membership of New Yorkers who merely run down to the club on hunt mornings by express train and back at night; with no country life save that which comes with an occasional drive from the station and the galloping to hounds across Long Island's level plains. Great would have been their surprise if they had accompanied me on election day to find the special train which ran out from Long Island City to the regular autumn steeplechases of the Club held but a little handful of men who might easily have been crowded into one Manhattan elevated car. What did this indicate? No interest? A small attendance because of election? It showed neither, for the interest proved absorbing and the attendance large. It really meant that the Meadow Brook set are living about Meadow Brook in their country homes.

It was one of life's most pleasant phases—a neighborhood meet, in which the neighbors would compete in their favorite pastime. Men would test their riding and their horses, not for money, but for the joy of the sport, and neighbors would look on, full of interest, cheering their favorites and admiring all. There was a tinge of danger in the sport, a tinge that added charm and thrill, to spectators as well as riders. For steeplechasing is not without its dangers, and a fall may be a serious matter. Therefore there are of course some who decry it as a senseless risk; but these are they who decry football and polar expeditions; who want peace regardless of price. What a matter-of-fact lifeless place this world would be if they had their way. In these days when poets tell us that romance is dead; when one gentleman faces another gentleman in court and makes apology for a slap in the face as the only alternative for legal proceedings; when an up-to-date railroad company advertises a "pilgrimage to Rome for $169," it is time that some one takes a little risk for the sake of giving the rest of us a thrill. Why is not such stimulation as legitimate a commodity as tea or coffee or champagne? What inspires to greater determination than the account of almost superhuman endurance and hardships in the arctics; or what gives more of impulse to dogged determination than the story of a football game or a long distance run? All sports are founded, not upon need of exercise, but upon the exhilaration, the thrill, they bring. The good ones who would substitute wood cutting for college football, on the theory that exercise is the one end of outdoor sport overlook this fact. That a spice of danger adds to the sport can not be denied. Not only does it render the competition more exciting but

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STARTING FROM THE CLUB STABLES.

it tends to shut out the faddists. Such an one will occasionally inherit, or marry money and become an insignificant part of a hunting set. He may stand at the starting point and be very busy "promoting the sport," but will hardly be found in at the finish after a run over natural obstacles.

This day of the autumnal steeplechase is an ideal one at Meadow Brook. The sky is clear, the sun bright, and the weather neither too warm nor too cold. The bracing air sets the blood stirring. Away to northward are the Wheatley Hills, where we catch the gleams, every little distance, of some palatial home set in the clearings. Climbing the polo stand and looking southeast we see the level stretches of Hempstead plains, with still other twentieth century country residences of the gathering sportsmen and sportswomen. Westward across the plains rise the steeples and outlines of Garden City. The polo ground is in perfect condition; one would not imagine that ponies had at any time recently raced across and across it. Across this, near the stand, runs the course of the steeplechase. It circles nearly to the railway track, turns southward, and returns to the field again. The assemblage has been growing, and there are now at least fifty vehicles along the western side of the polo field. Here and there is a horseback party of men and women who have followed the hounds over this same country. Across the field comes a man in racing costume. He rides to the saddling paddock. Other men in similar garb follow. The interest is beginning to grow. Every rider is a member of this community. Every one is the intimate friend of a number of the men and women in the carriages, and each one knows the pleasure that victory will give his own little group. And each is getting encouragement as he comes within speaking distance. He is addressed by his Christian name. He is Charley, or Albert, or Frank. That is one of the particles on the surface which enable us to gauge the depth of this community friendliness. Now come other farmers, native countrymen, who farm for a living. They are the men over whose lands the Meadow Brook hounds run. These men have been invited, and they are, apparently, as deeply interested in the races as any one. Some stand about the saddling paddock to get the gossip as to horses. Others, with their wives and children, drive to places in the assemblage of carriages along the western side of the field.

The races are three furlong matches between polo ponies, and steeplechases of three miles for half-bred and thoroughbred hunters. The final is a race for the horses of farmers over whose grounds the Meadow Brook hounds have run. One race is much like another in its excitement. The polo ponies tear down the turf and the audience strains its nerves as though life or death hung on the result. Now an old-timer loses by a neck to a young fellow to whom racing is a comparatively new game. Now a youngster of whom great things were prophesied

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TALKING IT OVER.

ted: for since there must be more losing than winning in races like these, the art of being a good loser is one of the chief requirements of sport. Another steeplechase follows. Its incidents consist of the shying of thoroughbreds at hurdles which the half-breds of the last race took without a sign of wavering. One throws his rider, but the latter is up again in a minute and in the saddle again. But at the next hurdle he is off. He strikes head first, and when he staggers to his feet blood is flowing from his mouth and nose but he is on his horse in an instant and follows in the chase. This day's racing is merely a small feature of the club's sport. For three days a week during the season of hunting the Meadow Brook riders have ridden to hounds, and on other days they have met on the polo fields.

fails to display in contest the nerve he has shown in previous sport. Comment and speculation as to why and why not, keep the spectators busy until the next race. And the incidents of the steeplechase will follow the same order. Here a man is winning, when there is a flash of something brown falling from his saddle, and a spurt of dust. He has lost his weight pad, and though he finishes far ahead of the field the cup is not his. Now comes the beauty of it all. When he rides into the paddock he does not explain how he would have won if the pad had not dropped, nor does he bluster and challenge to a new race or whine over his hard luck. He merely smiles and admits that the race is not his. And there is an end to it. That is the thoroughbred rider, though his steed in this race is but a half-bred, and his spirit is one to be emula-

Mr. Foxhall Keene. Mr John E. Cowdin.

IN THE SADDLING PADDOCK.

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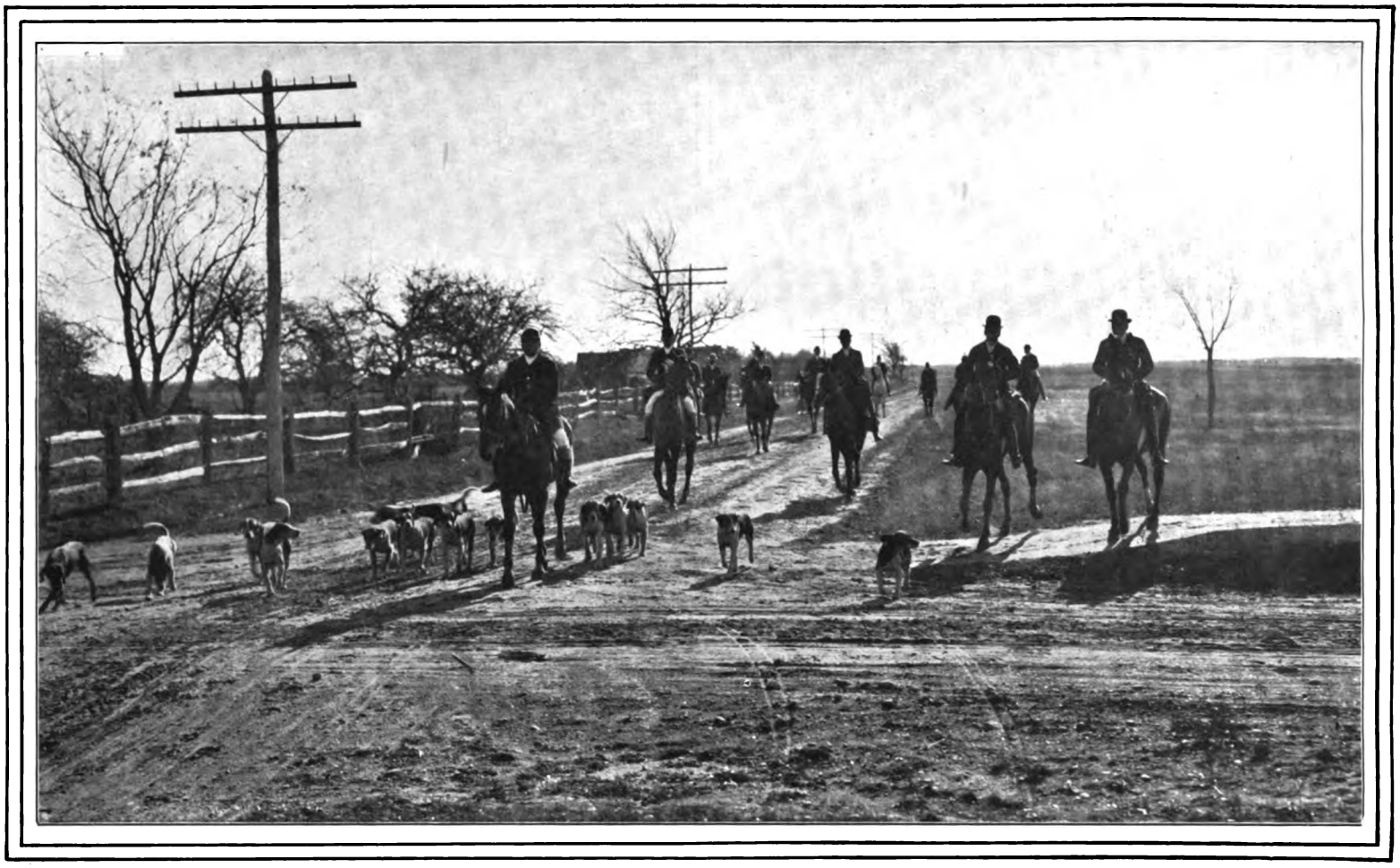

GOING TO THE MEET.

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Mrs. C. Albert Stevens.
NEIGHBORS.

And this picture of country life at Meadow Brook is not by any means an isolated case. The same life is developing near all eastern cities and is spreading to westward. Fox hunting has been practised in America since the early days of the past century, when the Fishing Company of the State in Schuylkill gave birth to the Gloucester Fox Hunting Club, whose members chased reynard about the hills in Philadelphia's neighborhood. And even before this men rode to hounds, but it is within the last score of years that sports of horsemanship have taken the great impulse that now carries them forward. With the coming of polo and drag hunting an opportunity was given for horse lovers to gratify their passion for rough riding, whether foxes were or were not to be found. These sports have taken hold and there seems to be no good reason why the nerve that has made Americans of the West the best horsemen of the world should not make those of the East equally good in their own branch of horsemanship.

This phase of American life is developing now and must necessarily undergo the vicissitudes of transition. Some of them will be undesirable, but unavoidable because of imperfect conditions. For instance the polo handicapping system has plenty of disagreeable features, but until the sport has been practised long enough to turn out teams approximately equal handicapping will be a necessary evil. Then, too, there is prejudice against roughness in sport that must be overcome or our horsemanship will be characterized by a namby-pamby element. An instance of this tendency is seen in these very steeplechases of the Meadow Brook meet. Formerly the chases were on the farm of the Hon. Wm. C. Whitney, in the Wheatley Hills, and the course lay over natural obstacles. Last year they were on the grounds of the Meadow Brook Club, and the only obstacles were hurdles. There are no fences, no walls and no water jumps. One realizes that this is a deterioration from the early chase, when fearless Irishmen picked out a distant steeple and raced for it across country, over wall and fence, through wood and briar patch and pool. But while this particular sign of weakening exists the general trend is upward.

Horsemanship in the vicinity of Boston has taken a spurt with the rise of the Norfolk Hunt from the members of the Dedham Polo Club. The riding to hounds with these sportsmen has been almost entirely after the drag: the reason being that in a country so closely settled as that about Dedham, fox hunting is impossible. Steeplechasing has been a feature of the club sport, and the obstacles have been

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IN AT THE DEATH.

such as stone walls, stake and wire fences, streams and ditches. With last year steeplechasing became sufficiently prominent to lead to a chase between Dedham and Myopia riders. The match occurred on Memorial day, on the grounds of the Brookline Country Club, at Clyde Park. Myopia riders finished first, second and third, with the result that every steeplechaser of the Dedham set is offering fancy prices for a horse that will enable him to "get back" at Myopia for this humiliation.

It is perhaps in the Genesee Valley that fox hunting has attained most nearly an ideal state. There foxes have been hunted since the days of the Indian. The Genesee riders have been so long at the game that the imitation sportsmen have long ago been weeded out. With the best of rough country to ride over, with men who love sport regardless of victory, rather than victory regardless of sport, Genesee has come to be the pattern of the American rider. Go where you will among fox hunters and drag hunters and lovers of cross country riding generally, you will hear the Genesee set mentioned as men who love sport for sport's sake, who play fair, who have passed the period of existence when "anything to win" and "anything to kill" are their mottoes. So much is not always said of all the clubs farther east, but perhaps this is because they are closer together and feel a keener rivalry.

Any impetus to one branch of such sport has its effect upon the whole, thus a taste of fox hunting prepared the soil for the drag when it made its appearance. Both these prepared the American people for polo, and within the last few years when polo has been gaining ground with such rapidity its effect has been to stimulate the older forms of horsemen's sports. And with these recreations has begun the development of a new country life for Americans. The man who likes horses and polo and cross country riding loves the country and wants to be in the country where he may have his stables at hand. So he buys a farm and when he may do so lives there. So the community of gentlemen farmers has grown up at Meadow Brook. One similar is taking its place in the region about Boston. Philadelphia has its country set and polo players, while horse lovers of the cities farther to westward are making country places. With it all comes a desire for better horses, new care in breeding, and improvements alike in hunter, polo pony and coach horse. And with it comes a love of outdoors, a fearlessness and a sportsmanship that promise to make American life far more worthy to be lived than it has been during the rushing, money getting second half of the nineteenth century.

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THE MAKING OF A STRONG MAN

AND SOME SUGGESTIONS FOR THOSE WHO WOULD ALSO BE STRONG

By Alexander Kidd

THE young man whose remarkable physical development is shown in the accompanying illustrations is Michael Todd-Judge, of the Todd-Judge family of strong men. He is eighteen years old and weighs 110 pounds. He performs such feats of strength as balancing two two-hundred-pound men on his shoulders and walking about the stage as easily as though the two men were two straws. Until five years ago it was not intended that he should become a professional strong man and he had not had an hour's training. The method followed in his development is full of hints to those who desire healthy bodies and strong muscles.

This method is almost unique, for it has not at all partaken of the general course laid down by physical trainers of the orthodox class; there have been no runs, no long drawn out periods of exercise, no dieting and none of the routine work with clubs, chest weights and dumb bells. The exercise taken has been so limited in amount that the average amateur would think it scarcely worth taking. According to Mr. Todd-Judge, the head of the family, all this departure from the routine has been for a purpose, and its results are visible to any one who knows the men trained under it. For instance, the muscles of Master Todd-Judge, when relaxed, are as soft as those of an office clerk, a striking contrast to those of many a young athlete whose long runs, hours of work and other features of the strenuous life in athletics have given him muscles which even when relaxed are like iron.

There is a vast difference between the two states, and according to the Todd-Judge idea, which seems to be borne out by facts, the former is by all odds the more desirable. Muscles hard and rope-like in relaxation, it is held, are on the verge of overtraining. They are about to become stale and have not nearly the power either to act or endure that muscles less hard and better trained possess. When one of the family under consideration reaches the point where staleness is threatened he stops work entirely and gives the overtrained muscles a rest. When the writer called, Master Todd-Judge had just made a decided departure from the routine. He had gone directly from the theater to Staten Island, had begun fishing at daylight in a pouring rain and returned in the evening drenched from head to foot, yet he went to the stage as usual and without a wink of sleep in forty hours danced about as lightly as ever with two giants upon his shoulders. Such relaxation as this is not often indulged in, but the trainer looks upon such an experience once in a while as valuable in breaking the monotony and guarding against the mental depression that follows too close application to business.

The idea running through the training of this boy has been that heavy work is required to give power, but that it should be approached gradually and gradually increased.

"I began the training of this boy and an English boy at the same time," said Mr. Todd-Judge. "I wanted this one to be able to lift and carry heavy weights and so I began to give him work calculated to produce all round development. He never touched a piece of ordinary apparatus. I commenced by putting a hand on each of his shoulders and bearing down, I would not continue the pressure more than a second or two at a time—just long enough to make the muscles of his shoulders shape themselves. After a few minutes of this sort of repeated pressure I would set him to tumbling and keep him at hard work for ten minutes. Then I would let the two play as they wanted to for twenty minutes more. Sometimes they would wrestle and sometimes tumble; when the twenty minutes were up their day's work was ended.

"They ate as much as they wanted and whatever they wanted, they slept eleven

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or twelve hours a night. It was not long after the training began until I could notice a wonderful difference in this boy's shoulders. When I bore down upon them the muscles would instantly become rigid to bear the new weight. In a little while I could increase the pressure, then I would put my hands on his shoulders and raise myself off the floor.

After a while I could spring up on his shoulders with my feet. So it was that gradually he became able to carry me about and then another man with me. But never in practice did he bear a heavy weight more than a few seconds at a time and never did his work and play together last more than half an hour a day."

The result of this pressure upon the shoulders may easily be tested by one interested in physical culture. All that is necessary is to stand before a glass and let some one place a hand on each shoulder from the rear and bear down. The muscles of the shoulders swell out to support the weight. Those of the chest and back must do their part and they also come into play. Since the leg muscles support all they, too, receive the burden, and must exert themselves to bear it. So by the simple matter of a pressure upon each shoulder all the principal muscles that give poise and grace and power to the body are developed and strengthened.

According to the trainer quoted above, this sort of work must be continued through several months to bear the best results. More work each day will bring more rapid development but the results are apt to be staleness and straining in the adult and a stunting of growth in the boy.

"It is very easy to see the difference in any group of acrobats," said the trainer. "In every one you see large men and dwarfs. You may set it down as a rule that the dwarfs began hard work in childhood and developed their muscles at the expense of bone and sinew. The big ones either waited until full grown to commence training or else they did very moderate work for some years. The best and strongest followed the latter course. Sandow began training when still a boy but he did not do the heavy work that stunts until he had reached his full growth. Then it did no harm."

After the work with the shoulders de-

FULL CHEST EXPANSION.

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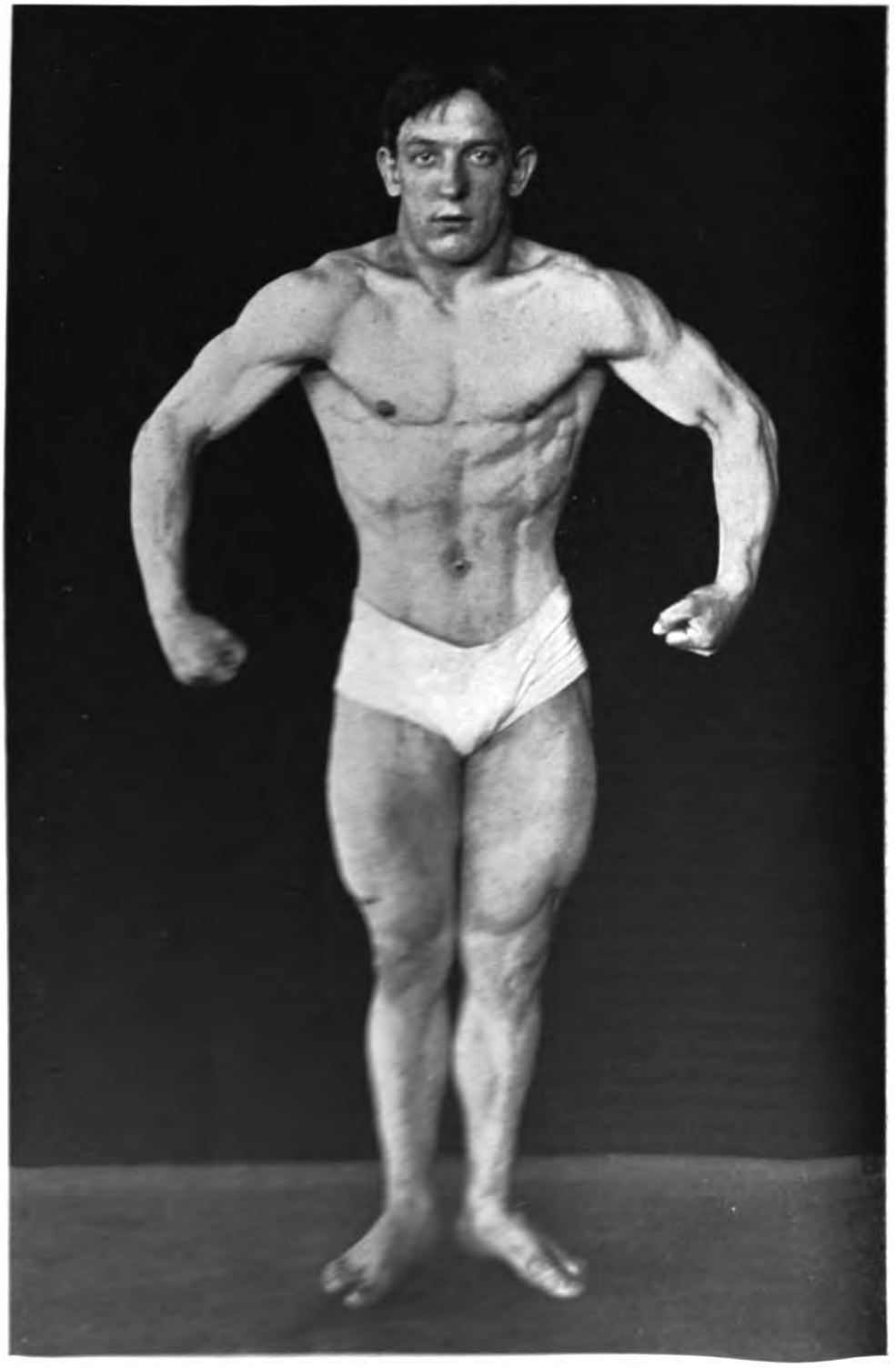

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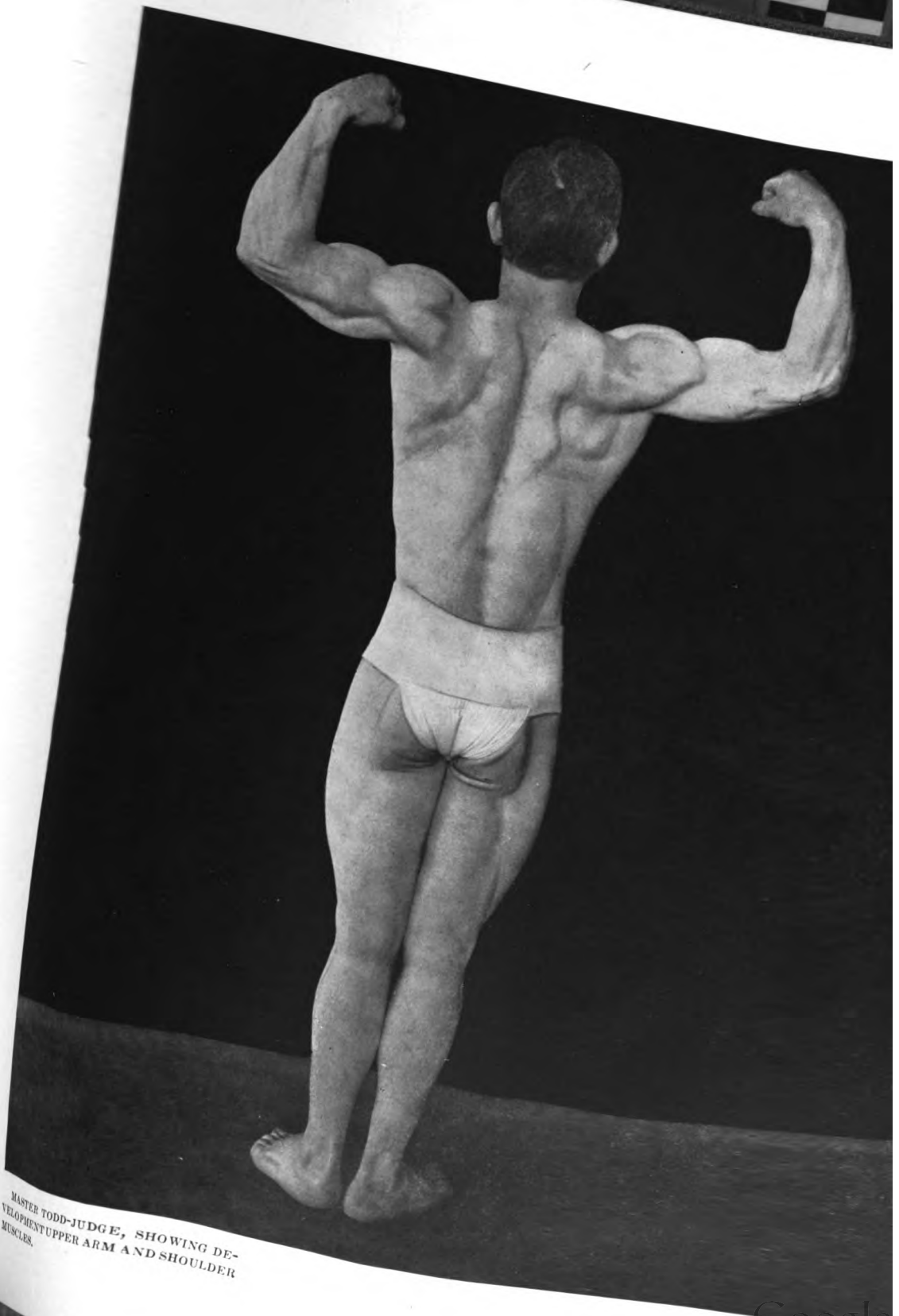

MASTER TODD-JUDGE, SHOWING DEVELOPMENT UPPER ARM AND SHOULDER MUSCLES.

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UPPER BACK MUSCLES.

scribed above, Master Todd-Judge was given further exercise calculated to develop the arms. This was a continuation of the shoulder pressure with an addition. The assistant would raise a heavy dumb-bell or other weight above the athlete's head. The latter would grasp it in both hands holding it in that position for a few seconds while the assistant bore down upon his shoulders. The result of long continued training of this sort is evident in the massive muscles of the arms, particularly those that lie in front of and behind the shoulder blades. Then the bell was done away with and the assistant would stand upon the athlete's shoulders while the latter, reaching up, would grasp the other's ankles, pushing upward with all his might and thus securing shoulder and arm exercise at the same time.

There is another feature of this young strong man's development that strikes the average person as astonishing. This is the firmness of the muscles over his stomach. At rest these are as soft as any other muscles. Contracted they remind one of the outside of a coil of rope. The writer was invited to strike the strong man in the solar plexus region. His taps were too gentle and the boy appealed to a companion. The latter landed a right swing calculated to send the average man writhing to the floor. But the athlete merely staggered backward from the force of the blow and gave no evidence whatever of feeling pain. The muscles covering this spot—the Achilles' heel of so many fighters—had stiffened themselves into armor plate and the tender organs beneath received no jar.

This effectiveness of the stomach muscles had come in part from the regular training at lifting and carrying weights and men upon the shoulders, but not wholly so. Much of it had resulted from work done in learning to tumble. The motion to which the trainer attributes this chiefly is the simple one of bending backward, and Mr. Todd-Judge insists that one needs to know nothing of the peculiar art of tumbling. There are two acts prescribed. In the first the man lies flat upon the floor on his back and then

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bending at the hips alone rises, without putting his hands on the floor, to a sitting position in which his body is bent at a right angle. In the second he stands twelve to eighteen inches from a wall, facing from it. He leans backward, touches the wall with his hands which are held straight above the head and then comes up to a standing position once more. In either of these exercises the muscles across the solar plexus are brought into play, fatty matter is removed, and the muscles attain a resistant force that renders blows of little account.

In the long months of work on the stage none of this family of strong men takes any regular exercise save that required in the actual performance which lasts but eight minutes and comes once in twenty-four hours. There is, however, one other aid to development which is rated high by their trainer and which appeals to all physiculturists as worthy of a trial, for the reason that it is easy and requires no apparatus. This consists in posing before a mirror.

Two values are attributed to posing. In the first place it helps in the education of the muscles. In the second the contraction of a muscle into rigid form produces a result similar to that of its use in active work. In speaking of the former Mr. Todd-Judge held out his hand.

"See," he exclaimed. "It is as limp as a rag. But put your other hand on the muscles of my arm, they are as hard as iron. Now you try it. There your hand and arm are both stiffened or both relaxed. Your muscles are not educated. An educated muscle should be on call, that is, you should be able to use it without at the same time using all the others in its neighborhood. This is one of the great secrets of endurance, to know how to relax the muscles not in use. Watch a boy the first time he puts on boxing gloves. His arms are rigid all the time. He cannot strike a hard blow and the tense condition of the muscles soon tires him. But see the skilled fighter. His arms hang loosely and there is no strain upon them when he is not striking. But then they straighten out and become steel bars in an instant. They work together or independently and no force is wasted. These are educated muscles."

His posings before the mirror are similar to those shown in the illustrations. Raising both hands above his head he will

MASTER TODD-JUDGE'S WONDERFUL MUSCULAR DEVELOPMENT UNDER SHOULDERS.

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MASTER TODD-JUDGE, SHOWING THIGH AND ARM DEVELOPMENT.

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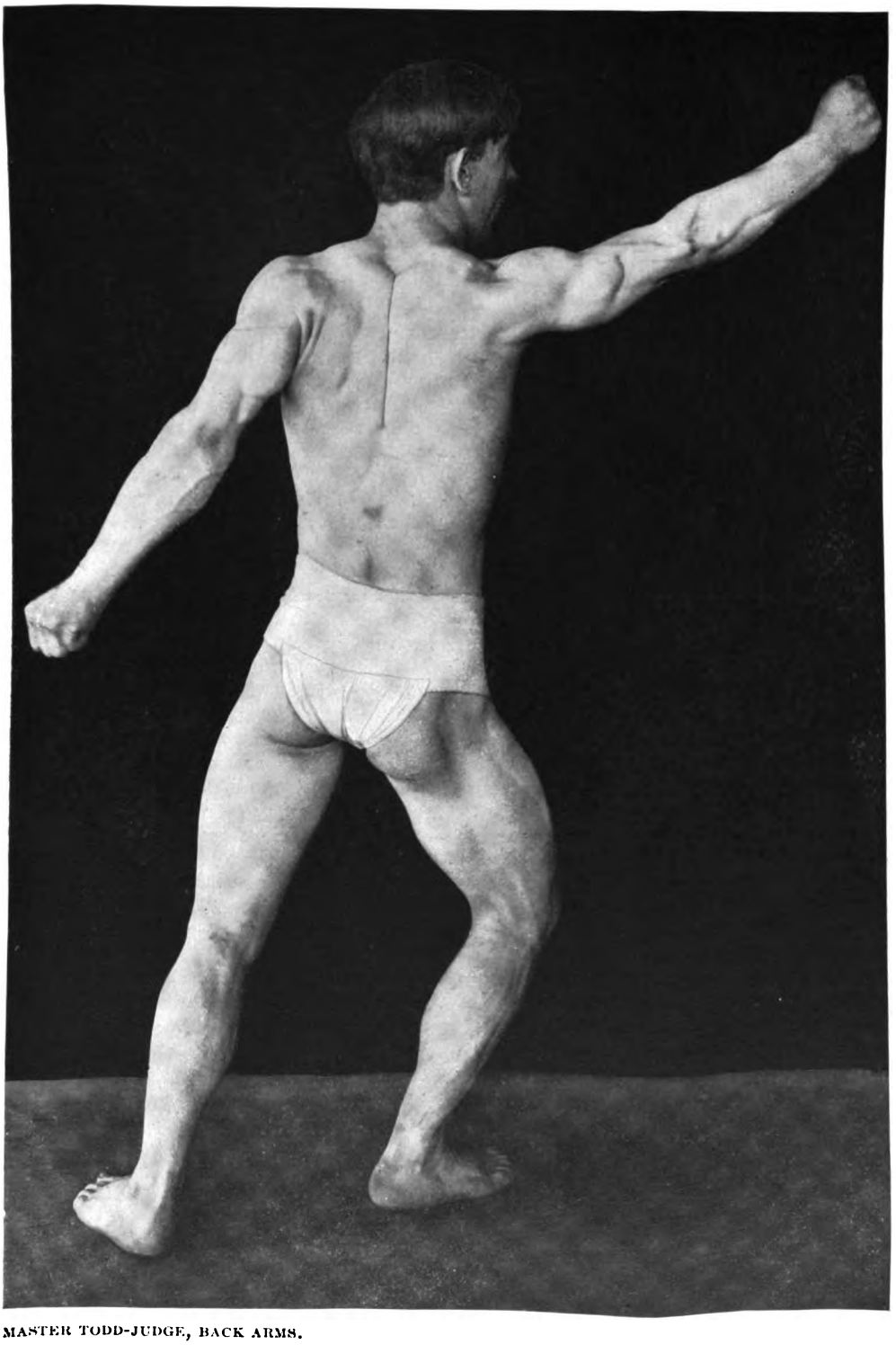

MASTER TODD-JUDGE, BACK ARMS.

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grasp two imaginary ankles. His muscles of both arm and shoulder will take the same rigidity as though a man were being balanced. This contraction, according to the trainer, is nearly as valuable as the actual work of thus holding a man in the air. Watching himself in the mirror he sees that every muscle is doing its part, or if, for the sake of their education, he choses to relax some while others are busy he sees that they are relaxed. Likewise he watches the action of arm, leg and chest muscles, and after a little experimenting is able to exercise by this simple means all the great systems of muscles which enter into the work of a strong man. So, too, he exhausts and expands the chest, learning from the glass when an expansion has been greater than the last and strengthening at once the lungs and external muscles of the chest.

Members of this family believe their strength is due in a large measure to the regularity of their work. There is very little of it but that little comes every day, there are no seasons of hard work followed by long periods of relaxation.

"Watch the fighters," said Mr. Todd-Judge, "and you will notice that the fellows like Sullivan, Fitzsimmons and McGovern, who last, are the ones who are always fighting. The ones who fight to-day and do nothing for six months are the ones who soon give out." His advice to all persons who would have strong bodies is to do some work every day and never relax for any extended period.

His complaint against ordinary exercises prescribed by experts in physical culture is that they are taken merely as exercises much as men take medicine—dreading it but swallowing it from a sense of duty. So far as possible the daily exercise should be a means rather than end, and should be taken in connection with some pastime or recreation. Above all, the would-be strong man should not worry.

"Worry and whiskey are the worst things in our business," said Mr. Todd-Judge. "When I'm training boys and they begin to get discouraged I tell them they're doing well. If I told them how bad their work was they would be so blue that it would surely get worse, so I stretch the truth, tell them they are doing well and they brace up in a minute. A man with a heavy heart can't do heavy work and stand up under it. I had a young fellow with me once who was one of the best tumblers I ever knew and was also very strong. He was a good boxer and was anxious to enter the ring. He had his heart set on winning, and when the other fellow knocked him out with one punch he was so depressed that he lost strength and nerve and did so badly that he left us in despair, and I've never heard from him since.

"Another of the biggest and strongest men I ever had was a whiskey fiend. He would be all right for a year and then drink every day for two weeks. The third week he would be in the alcoholic ward of some hospital and when he got out he would have no more taste for whiskey. But oh, how weak he was! His heart would thump like a trip hammer at every bit of work and it would take weeks for it to get over the effect of that drunk."

While the Todd-Judge strong men are not restricted in their diet it is a curious fact that they eat very much like athletes under strict training regulations; they care little for pastry and eat steaks and eggs in a way to astonish landlords. Whether this is merely a matter of individual taste or whether it is characteristic of strong men to like strength-giving foods would be an interesting question. Master Todd-Judge is specially fond of steaks and he wants them rare. He will eat a pound or more of beefsteak after an evening performance, go to bed, sleep ten or more hours and call for another steak. His trainer approves of hearty eating and long sleeping.

"Sleep gives just the right conditions for the assimilation of those beefsteaks," said he, "and a boy who eats and sleeps will be so buoyant and lively that there is no temptation to drink, for the reason that he will not feel the need of stimulation."

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THE GROWTH OF GAME PRESERVING

FIRST PAPER

By W. A. Baillie-Grohman

GAME preserving in one form or another has occupied the minds of men for centuries. I have before me a shelf full of written treatises and printed works, the former from the fourteenth century onwards, the latter extending to the last Parliamentary Blue Book, in which in Latin, French, German, Italian, Spanish and English the question is threshed out by learned scribes, as well as by practical sportsmen, at a length that would surprise those who happen to be unacquainted with the important rôle played by all questions relating to sport in the old days. Most of the older writers dealt with the subject from their sovereign's point of view—naturally a thoroughly selfish one—and wrote as special pleaders either by direct order of the latter or with the evident desire to ingratiate themselves. To the world at large was to be proved that as the rights of the chase were a sacred and inalienable prerogative of sovereigns, the preservation of game, at the cost of the subject, mind you, was a duty that should be as sacred to the latter as was the right to enjoy the fruits of this preserving to the duke or king and his courtiers. In other words the man who tilled the ground had to do the preserving of deer, wild boar and smaller game by leaving his crops unfenced and by not employing any means to keep the game off his fields, while his lord did the killing. Only small, slow-running "dogs of the dung-hill" could be kept by the peasant, and all larger dogs professionally employed by butchers, shepherds and cattle drivers had to bear about their necks a cord to which were fastened big cudgels of wood that effectually prevented them from going in pursuit of deer or boar. Of the ferocious forest laws and general spirit of inhumanity that marked all legislation relating to the protection of game, of the terrible punishments that were meted out to poachers, all have heard who have given this subject the slightest attention.

Though this early game protecting, as we might call game preservation in medieval times, had for its object principally big game, such as deer, a wild boar, and even in some instances savage animals of prey that were a source of considerable danger to the unfortunate peasant class, it also occupied itself principally in England with small game and fowl. Richard II. more than five hundred years ago passed laws protecting hares and rabbits against hunting with greyhounds, or the use of ferrets, nets and snares by which persons of low degree were in the habit of taking "gentleman's game." No layman owning lands of a less value than forty shillings a year (a sum that would correspond to modern values twenty times as great), or any priest or clerk having less than ten pounds per annum, was allowed to possess dogs to hunt, or ferrets, or could set up "hayes, nettes, hare-pipes or engines" on pain of a year's imprisonment. Henry VII. protected "fesauntes and partryches," ordering heavy fines to be levied for the taking of these birds on another's land. That sturdy sportsman, Henry VIII., made (1523) the tracking of hares in the snow illegal, "for," says the statute in question (14 and 15, Henry VIII., cap. 10), "the king and other noblemen of the realm," who "have used and exercised the game of hunting the hare for their disporte and pleasure" can do so no longer, for it is "now decayed and almost utterlie distroied by reason of the iniquities of divers persons who habitually track hares in the snow and by that means kill ten, twelve or sixteen in a day." "Tracing in the snow," whether with dog or bow or otherwise, was therefore wholly forbidden. Eleven years before the same king had enacted that no subjects of his with a yearly income of less than 300 marks should have in their possession crossbows or handguns for other purposes than the defence of their houses, the inhabitants of walled towns within seven miles of the sea or of the Scottish boundary being excepted. The use of the long bow, on the other hand, was encouraged by this monarch, the mainte-

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nance of archery as a means of national defence being, we must not forget, one of the favorite fads of Bluff Harry.

Gunpowder throughout the first half of the sixteenth century had not been taken up by sportsmen who respected themselves. It was regarded with much the same disdainful scorn with which the armor-clad knight had regarded ita hundred years before, when stone balls were fired from primitive hand-welded tubes. It took the medieval sportsman a century longer than the soldier to appreciate its potentiality, and it is rather curious to note that all over Europe the poachers appeared to have been the first to make use of it for the killing of game. In Germany we find Emperor Maximilian I. writing wrathful letters about the villains who persisted in killing his cherished ibex with firearms; in France, King Francis I. passed some drastic laws, and in England where big game was no longer as plentiful as in either of the last-named countries, statutes were passed in 1548 that forbade the shooting of "hayle-shot." No subject below the degree of "Lord of Parliament" shall shoot "out of hand-guns any hayle-shot or any more pellotts (pellets) than one at a time."

Eight years before (1540), as early instances of game protection on modern lines, laws were passed that prohibited the purchase or sale of pheasants and partridges, but to judge by subsequent enactments they failed to stop the evil (it was not until 1831 that game could legally be sold in England), and the king's coverts, as well as those of lesser personages, remained the prey of sneaking poachers. Wild fowl, in favor of which a somewhat short close season, from May 31 to August 30, had been enacted, as early as 1534, had from the earliest times been the object of skilful snaring devices such as we see in the pictures of Stradanus, Bol and other sixteenth century artists. The same law that regulated the close season interdicted the killing of wild fowl to all subjects who had not a freehold of the annual value of forty shillings. Those that had were permitted to take fowl "within spayels and long bow."

As the purchasing power of money decreased the franchise was raised. In Richard II.'s time the possession of land worth annually forty shillings sufficed to sanction e killing of game on one's own land. Two ndred years later, in James I.'s reign, a person had to own land of the annual value of ten pounds, and only those of noble degree were permitted to keep a "hound or setting-dog" or net. In Charles II.'s reign the franchise was raised to £100 a year, and by that time the ravages of the wars of the Commonwealth, when hundreds of parks and the few remaining tracts of wild woodland disappeared forever from the face of the land, had sadly reduced game all over England. The last-named limit remained in force until George III.'s reign when the new experiment of introducing game certificates was tried, and this in addition to the property and birth qualification.

From then on game laws began to take the place of the old forest laws about which a word remains to be said. Forests had laws and courts of their own, according to which, as the well-known seventeenth century authority Manwood explains, "offenders are justiceable." The courts of the forests were three in number, court of attachment or wood-mote, swanimote and justice seat. The first dealt with any hurt done to vert and to venison *in veridi et venatione;* the second was the one to which freeholders within the forest owed suit and service and over this court verderers were appointed judges. The last-named tribunal was that of the Chief Justice in Eyre and this was the principal tribunal. The forest officers were called stewards, verderers, foresters, regarders, agisters and woodwards. The regarders were inspectors and they had to visit the forest every three years, while the agisters had to look after the pasturage and collect agistments or rents for the use of pasturage. An incredible amount of red-tape and medieval circumlocution was the principal feature of these old laws, and we stumble upon quaint misdemeanors, such as the offence of "purpresture" or encroachment upon a forest. If a man converted woodlands within a forest into arable land he was guilty of the offence of "assarting," whether the covert belonged to him or not. Land which became disafforested was known as "purlieu," but even there the king's wild beasts were to have "free recourse without any hurt or destruction."

The statutes passed at various times concerning the preservation of game must be regarded as distinct from those which regulated the killing of game. So far as

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England is concerned the former are principally represented by what was known as "imparking," viz., the starting of deer parks by making closures or reserves, establishing deer-leaps and taking other means to "preserve deer." Shirley, in his interesting work on the deer parks of England, mentions that the thirty-one parks which are enumerated in Domesday Book had grown in his day (1867) to as many as three hundred and thirty-four, though the number of those in which exclusively red deer were kept was the same as mentioned in that great survey of the Norman days. As a matter of fact only one of the former can be identified with any degree of certainty as having existed in William the Conqueror's time.

Reaching the present times it is impossible to cite the British game laws as they exist today as good examples of what such legislation should be. In fact one might describe them as sharing the reputation of the British Patent laws which are unquestionably the worst of their kind that have been permitted to survive to the twentieth century. As they are so bad it is hardly worth while to do more than to give a few instances. Take as an example the stag and the hare: concerning these beasts England and Scotland have not found it proper to follow Irish legislation which, by establishing proper close times, protects both during the months when the young are helpless and when by killing of the mother one destroys also the young. Then there is an inextricable confusion respecting the rights of occupiers of enclosed land, of unenclosed, leased or freehold land, what may and what may not be shot in each of the three kingdoms, what licenses, whether game, gun, keeper's or dealer's licenses are needed for certain acts, what the cost of these various licenses is, and where they can be obtained, and with what authorities one comes into conflict when contravening any one of the countless regulations.

The most mischievous of all these license regulations is the one concerning gun licenses. An act passed in 1870 provides that a tax of ten shillings per annum must be paid before it is legal to carry or use a firearm (revolvers even being included), gun makers in the discharge of their business and army volunteers alone being excepted. In consequence men wishing to practice rifle shooting at ranges are mulcted of ten shillings and as the majority can not pay this tax, rifle-shooting is practically unknown among the civilian population of Britain. One cannot be surprised that the notoriously bad shooting of the British troops in the South African campaign helped the Boers to make such a surprising resistance to Britain's world power.

The laws governing fishing, notably those related to salmon fishing, are even in more perplexing confusion, if that is possible, than those we have dealt with. Almost every single river that has ever known a salmon in its waters has different regulations as to close time, licenses and local legislation, even little Wales considering itself entitled to have legislation of its own. Each river has its own pet regulations passed by its own particular board of conservators, England and Wales alone boasting of fifty-three of these antiquated bodies that should long ago have been swept aside to make room for a uniform code and legislators appreciative of the day's needs.

(To be continued.)

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'ROUND CRAIGE'S POND

By James O. Whittemore

I. THE SECRET OF OLD BILL LASHUS.

IT is generally acknowledged by sportsmen familiar with the fish and game regions of Eastern Maine that there are more and larger trout and land-locked salmon in Craige's Pond than in any other of its area in that section of the country. It is also admitted that it is more difficult to make a catch from that little sheet of water than any in the country this side of the Great Salt Lake.

Craige's Pond is in a beautiful little basin far above the sea level and located in one corner of Hancock county. Its outlet is called Craige's Brook and its course is diverted through the troughs and ponds of the U. S. Fish Commission's hatchery known officially as Craige's Brook station, one of the most important in the country and in charge of a culturist of high repute.

For many years the surplus of salmon and trout fry from this station has been liberated in the pond and the result is that the waters are teeming with magnificent fish. In spawning time the roe fish are netted in this pond by the crew of the station to be stripped of their eggs. Then it is that the full resources of its waters are apparent.

Netting otherwise than by authority is strictly prohibited under the heaviest penalty, but fishing under the restrictions of the State game laws is permitted at any time.

"Old Bill" Lashus is dead.

The late Mr. Lashus did not cut much of a figure in the community, being a lonely old Canuck who lived in a little hut down by a swamp, and made a scanty living by hunting, trapping and cutting hoop poles.

But his death is greatly mourned by the sporting fraternity for miles around, for the reason that with him died the secret of his wonderful bait, with which he could lure from Craige's Pond the big land-locked salmon, the beautiful rainbow and gamey square tailed trout.

"Old Bill" could get more fish in an hour with a mackerel jig on a cotton line at the end of an alder pole, than the entire Poodumsook Sporting Club with their elegant lancewoods and whole encyclopediæ of fly books. And "Old Bill" could get the big ones, too. No one else could get any of any size except one or two at rare intervals. The fish simply would not bite. People who pretended to know said that the fish in Craige's were too well fed; that the pond was full of small minnows upon which the fish gorged themselves until they did not care to exert themselves for skipping flies, doubtful looking angleworms, or a minnow evidently in deep distress. Mr. Lashus openly admitted that the secret of his success was "um bait" but would vouchsafe no more information upon that point.

He was watched times without number by vigilant game wardens who suspected that the old fellow might be violating some of the laws the State made and provided, but he was always found sitting on some boulder or stump—where others had fished for days—and pulling in the salmon and trout with exasperating regularity.

And the suspicions were unfounded after all. Now that the old man is dead no one says aught than that he was a true sportsman up to a certain point. He violated no law.

Temptation was frequently placed before the old man to induce him to reveal his secret bait. Money would not move him in the least and it was only when some of the ardent spirits, the sale of which is forbidden by the laws of Maine, were held up as an inducement that he would show any signs of yielding his closely guarded formula. Such a temptation would produce a terrible commotion in his breast, and often when he seemed on the point of yielding he would nerve himself against the great temptation and say:

"No sair-r! Me no dare to tell how catch um feesh. Ol' Mugwash—heem beeg Penobscot chief tell um me long tam'go. Mugwash he say, 'Beel, nevair you tell white man long's you leeve. You do, Ugh!'

"He say, 'You tell some one, then me come some night an' dance, an' dance and

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drop one beeg stone on you haid and you die pooty queek.' Sacre! Me no want Mugwash come. Heem beeg chief. Scare me death, heem come some night on my house. Me no dare tell you—anybody."

No assurance that Mugwash was so long, long dead that he would never come back would have any effect on the old Frenchman, and he surely did keep faith with the old Penobscot chief who told him how to catch fish years ago. The old man was kind and good-natured enough, but had few friends. About the only person he ever took into his confidence to the least degree was Sim Billings. Sim is a great hunter and fisherman, and for years patiently and persistently labored to find the secret of "Old Bill's" secret bait. But the old man died before Sim succeeded, although Sim thinks that he came as near getting it as anyone. And this is the history of his "nears" as he told it to the boys in Bunker's grocery store one night not long after Mr. Lashus passed out.

"Yes," began Sim, "I s'pose I came as near findin' out what ol' Bill used to bait up with as any one in these 'ere parts—but that ain't sayin' much. I call it hard luck 'cause on three or four times I come awful near it.

"Some of ye know that on my expeditions I always carry a little vial of good stuff in case of accidents."

"Accidental thirst?" put in one of the listeners.

Sim paid no attention to the interruption, and continued: "You all know how well the ol' man liked a little speerit. Well, I s'pose I have wasted more'n a gallon on 'im at different times an' in different places, an' that's all the good it did. One day I run across him up on Great Pond mountain, blueberryin'. He had been pickin' all day an' was putty near fagged out. So I helped him to tote his berries down to the wood road, where a team was coming up after the pickers. Then we set down side of a rock an' I perduced my invigorator. Wasn't the ol' man tickled. We had a smile or two apiece an' th' ol' man appreciated it, yes he did. We set ther a-talkin' 'bout one thing an' another, an' finally I steered th' subjict 'round on fishin', an' he says, says he: 'Now, Meester Seem, I be gittin' ol' man—no go feesh mooch more. Samone get beeg feesh when I gone, eh? Me guess no. P'raps me tell some one how catch beeg feesh. You putty good feller, Seem. Me goot might tell you ef you nevair, nevair, nevair tell no one long's you leeve.'

"You'd better believe that I promised—as solemn a promise as I ever made in my life. So, he says: 'You go 'way out in field and dig some nice fat anglewum. Put heem in one big bottaile and hide him on dark plaice. Den bimeby you go on store and buy some dat goot smell stuff you call dat er-r-r—'

"Well, boys, I was holding my breath waiting for the next word, which was what I had been after for years when I saw the ol' man lookin' down the hill with his eyes bulgin' out, an' what do you s'pose I saw?

"There was an ol' she bear an' two cubs sniffin' 'round the berries. We forgot about the fish an' everything else an' putter back up the hill where there was some fellows that had a rifle among them. There was so much excitement that I forgot all about asking the old man about the patent stuff he put on his angleworms.

"I saw the old man a number of times afterwards, but he would always say, 'Me tell you, Seem—some odder time.'

"That 'some odder time' didn't seem to come—only once.

"That was the time ol' Lashus got into Sim Higgins's b'ar trap up on Winkumpaw stream. You all know about that. Ol' man blundered into it, an' came near taking his leg off.

"I was out after birds and heared him hollerin'. I got 'im out of the trap and helped him to the old log camp nearby. I happened to have a little spirit with me that day, too. I used a considerable lot on the ol' man both inside and outside. I built a good fire in the camp, fixed his leg up with bandages as well as I could and got him feeling pretty good. We talked along about things and things and finally the ol' man broke out with:

"'You damgoot feller, Seem. You help ol' man out bad scrape. Me no leeve much longer, Seem. Bimeby die. Then who catch um beeg feesh in pond, eh? Me tell you now, Seem, 'cause you damgoot feller an' you nevair tell, nevair, nevair, nevair.'

"I promised the old chap as strong as I knew how and s'posed of course I was goin' to get everything all right.

"'You go 'way out in field, turn over de tuff and git um nice, beeg, fat anglewum. Put heem anglewum in bottaile

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in dark plaice. Den you go on um store an git you some *je sou*—ten cents—worth dat er-er-er whad you call um!—'

"Well, boys, just that minute somethin' took place. There was the all-firedest 'splosion ye ever heard of. The fire was blowed all over the room, clay chimney fell in and we were nigh buried up in ashes and blinded with smoke, while the whole shebang came near burnin' up.

"I always s'posed that some fool hunter had left powder or cartridges in the fireplace. While we was repairing damages a lot of the boys happened along, and in all the crowd and excitement I didn't get a chance to ask ol' Lashus anything more about that great bait of his'n.

"All of you know what finally knocked the ol' man out—fallin off the Bull's Eye bridge. Struck on 'is head. I was down there the night he died. Poor ol' cuss was just breathin' his last when I went in. He kind o' chirked up when he see me and motioned me to come nearer to 'im. I put my head down and he whispered, 'Me no catch no more beeg feesh, Seem. Me tell you how. Go out in field git um beeg anglewum. Put heem in big bottaile on dark plaice. Den go on de store and get den cents wort er-er-er—'

"He tried awful hard to tell me but couldn't get out another word. Then came that rattle in 'is throat and all was over with poor ol' Bill.

"I've tried to find out what it was that he bought here but he got so much different stuff to make his liniments and medicines with that I can't hit it. Now you fellers know as much about ol' Bill's bait as I do."

And so it is that the secret of the taking bait for the big fish of Craige's pond died with Mr. Lashus.

II. A PORCUPINE PROTECTORATE.

PORCUPINE HILL is on the north shore of Craige's pond. One side slopes nearly to the water and the other to the tract known as Surrey gore.

Unless the Stinchfield boys are downright liars, which is contrary to their generally established reputation in the community, naturalists and hunters will be interested in one of the most curious alliances which has ever been heard of in this part of the country, if anywhere else.

For weeks the professional and amateur hunters of this region were perplexed and "stumped" beyond measure to account for the total disappearance of the partridges from Surrey gore, which had always been a paradise for the birds, with its old growth of beeches and fringed with evergreens and all the kinds of berries upon which the birds delight to feed.

Several logging roads run through the tract and in times past it has been an easy matter to stroll along one of these picturesque thoroughfares or skirt the edges of the growth and get a good bag.

This year hardly a solitary bird had been seen where there has usually been hundreds. Many of the hunters have tramped through and through the tract and worked every cover with some of the finest dogs in the section without results worth the mention. But it must be said that the dogs do not work with much enthusiasm on the gore. Nearly all of them, from the high-bred pointers and setters to the little curs, have had more or less trouble with the hedgehogs of Porcupine hill.

Porcupine Hill is considerable of a knoll. Around the base is strewn huge boulders with many holes and small caverns while the hill itself is covered with beeches and evergreens like the rest of the tract. Those of the hunters who know the region keep their young dogs away from the hill, as experience has taught them that such a course is advisable unless they want the trouble of extracting several dozen of assorted sizes of quills from the muzzles of the dogs. And so it has been that for all the season up to within a few days the hunters have given Porcupine a wide berth, for their dog's sake as it were.

Bill Albee and Sim McPheters flushed a big covey of birds in the gore, and worked their famous setter Lentulus in after them. Pretty soon the dog set up such a howling that the hunters thought that he must have come across a bear or something fully as large and ferocious.

They found Lentulus at the foot of Porcupine with his nose full of quills and no less than five hedgehogs rolled up and bristling about him. The hogs scurried off as the men came up. It took the rest of the afternoon to fix up the dog. And when Bill went to the gore a week or so afterward not a foot would Lentulus stir into the growth; and Bill had refused an offer of $150 for that dog.

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Abe Stables heard of the affair and started out one fine day with his old veteran coon dog Spook. Spook had tackled every kind of beast to be found either in a domesticated or wild state in Maine woods and knew just what to do when he came across a hedgehog.

Abe was not long in the woods before he flushed a big flock of birds on the back side of the hill, brought down one and worked his dog in upon the rest. Spook soon came back with his tail between his legs and not commands nor kicks nor clubbing would get him to work any more in that place.

Abe started along towards the hill cautiously in hopes to get a wing shot, but soon fell in with what appeared to be a convention of all the hedgehogs in Hancock county. There were dozens of the beasts scurrying over the rocks and on all sides of the path. The hill seemed alive with them. Abe wasn't afraid of them but he had some misgivings about his dog, and as it was getting late he started for home.

One day, Bill Stinchfield of East Orland, took his small squirrel rifle and started for the gore to look for some grays. He came back without any squirrels but with a very knowing look. The next day Bill and his brother took their double-barrelled shot guns and struck out in the direction of the gore, being very careful to leave the dogs tied securely in the barn. About sunset they returned loaded down with partridges —to the fullest extent of the law. No such bags had been brought in for years. Of course everyone wanted to know where the boys got the birds and all about it. With many a sly wink Bill told the story some time after, to the boys around the stove in Bunker's store, about as follows:

"You know that I was out after the gore birds as early as anybody, an' I tramped, an' I tramped days an' days without gettin' nary a one. Had to spend the most of my time picking hedgehog quills out of the snout of the pups—never did see the consarned hogs so thick in the gore as this year.

"Wall, I thought an' chewed an' thought where t'ell was all the birds. I suspicioned that they might be a flock or two up on Porcupine Hill but I didn't want my dogs to be spiled' in gittin' 'em. I'd given up the idea of gittin' any birds on the gore this year an' so the other day I thought I'd change my luck and try the gray squir'ls. So I took my little rifle and went out into the patch.

"I was beatin' 'round and soon brought up at Porcupine Hill. I had a grudge agin' them critters for spittin' the pups and so I murdered a few. By gosh a'mighty, there was millions on 'em. Then I got a big club and layed 'em out in winrows. As soon as I started to go up the hill they commenced to come at me—yes they did—a' squealin' an' gruntin' an' showin' their teeth. They were tryin' their best to keep me from goin' up the hill—yes they were.

"I had to lay out forty or fifty before I could git along at all. Then I started up the hill, and the partridges commenced to fly ahead an' on every side. The air was full of 'em. Never see so many in all my life; never. Every step er two a flock would go up. All's I had left was a couple of ca'tridges, but I made both good an' dead easy pickin' out a couple of big cocks. I believe every partridge on the gore was on the hill that day.

"Well, I goes home and tells Ben about it, an' we went out with our guns. I thought that I had killed about all the hedgehogs they was, the day before, but there seemed to be just as many left when we started up the hill path—so many that we had to retreat—yes we did—an' try the ravine. We found the birds all right—you fellers perhaps noticed what we brought home, didn't ye?

"Now, what do you think? I know what I think, an' Ben agrees with me adzactly. We have figgered out something which I don't believe anyone has ever figgered out before. In the fust place, we found out where all the gore birds wuz—up on Porcupine hill. Then ag'in, we found out why they wuz all up there, b'gosh we did. Now wh'dye think?"

Bill waited a few moments to give effect to what he was about to disclose and continued:

"Them birds was up on that hill because they knew that no dog could git at 'em through all them hedgehogs. I believe, as sure as I am a settin' here, that the birds had made some sort of a trade with the hedgehogs to protect 'em. I don't know just what trade the birds made cause I ain't no Mowgli—all's I know is that the hedge hogs was doin' their part—wasn't they, Ben?"

"Sartin," answered Ben, with emphasis.

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NAUTICAL NOMENCLATURE

By the Late Captain Cornelius W. McKay

HOW few of the intelligent persons who read yachting reports understand them comprehensively! The average layman, in reading the technical yacht racing accounts, which he fails to clearly apprehend, satisfies himself by putting it down as "nautical language." As a natural consequence, the reading public is being bamboozled into accepting all sorts of misleading figures of speech, misapplied yachting terms, etc., under the guise of correct nautical phraseology.

A hankering after the "brackish tongue" and sea idioms is natural, no doubt, to a maritime people and their descendants. Technical blunders, misleading both to the learned and unlearned; stupid metaphors and similes, indefensible and innumerable, have crept into nautic lore from time to time; and, strange to say, in these days of captious literary criticism, such slovenly writing has gone unchallenged. Generally speaking, the meaning of a word is determined by precedent, authority or usage, and nautical words are no exception to this law. Nautical phraseology has preserved many old British and Anglo-Saxon words, pregnant with meaning to all who will take the trouble to trace them to their origin. This trouble the lexicographers of the present day have not taken; and authentic marine and naval digests, or dictionaries, for them to plagiarize are scarce. Hence we find "confusion worse confounded" in many attempts nowadays at nautical descriptions.

The coinage of new words, or the giving of new meanings to old words, in the dialect of the sea, is silly pretentiousness, in view of the poetical character and the fullness of the conventional nautical and naval vocabulary. Some errors, however—technical and literal—have been handed down and pass current in the sea language of the day. Prominent among them is the use and abuse of the word beam for breadth, so often seen and heard.

"Beam" signifies literally a piece of timber, or metal, much longer than it is wide. It is a household word, and has been for centuries; and the appurtenance is as essential to the frame of a house as it is to the frame of a ship. This excessive length in one dimension a beam must have to distinguish it from a block. The measurement for the breadth of a vessel has been most always taken at the main beam, and in descriptive specifications of vessels, as early as 1419, there can be read in Old English the "lenthe" taken at the various "bemes," to signify how broad the vessel was. In a description of the war ship *Royal Prince*, found in Stow's Chronicle, in 1610, can be read, "the cross beame 44 ft. in length," signifying how broad she was. In the first tonnage law of England, enacted in 1719, in the enumeration of the factors used to produce the tonnage, can be read, "and the breadth within board by the Midship Beam," to be taken. Hence can be seen the early association in idea of the dimension, breadth, with the structural component feature, beam, from which association, beyond all doubt, arose the confused notion of an identity in things totally dissimilar. This literal absurdity of beam for breadth was born as a nonsensical colloquialism; and the fact that Sir Walter Raleigh, who discussed nautical and naval affairs to the edification of the world as early as 1650, never commits such a vulgarism, supports the assertion. It is always "broad" with him, as it was, too, with Pepys, the Secretary of the Admiralty, in the seventeenth century. Beam for breadth is not used in any British legal document, nor by any naval authority in Great Britain to this day. Nor is beam used in the Government Register or the Custom House enrollments of either British or American vessels. As a nautical idiom, beam, signifying a line or a point in the middle of the ship's length, agrees with the established usage, but how to account for that tautological absurdity, "breadth of beam" (breadth of width) passeth all understanding. This stupid, illogical phrase evidently belongs in the category of galley slang, and it should head the list.

"Beat, or beating, to windward" is a tautological phrase much affected by ver-

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bose nautical writers, but no one can conceive of a vessel's "beating" to leeward. When a vessel "beats," or is "beating," she either works or turns to the windward.

"Even keel" is an old nautical idiom, and signifies, in its original meaning, that the keel is as deeply submerged at the bow as it is at the stern; that is, lies parallel horizontally or otherwise to the surface of the water. Totten's Naval Text Book (1841) makes the phrase apply as well to a vessel when she sits upright, and some lexicographers have copied his two diverging definitions. The original meaning is the correct and sensible one, and none other should be attributed to the phrase.

"Full to Full."—In the *America's* Cup trial races of 1895 from "full to full" was given by an authority as situations limiting the time which one of the big sloops took to go in stays. Celerity in tacking ship is a very desirable attribute in the modern racing yacht, for nowadays races are won oftentimes by seconds. For a correct and sensible comparison, it is, of course, imperative to measure the exact time taken by the yacht when "in stays"—no more, no less. A vessel, when working to windward, is "in stays" when she is not on her course on either tack, and only then. Consequently, the time consumed in tacking ship begins when the craft leaves her course, on the original tack; and it ends as soon as she arrives at or is sailing on the opposite tack. Now, then, it is plain, or should be to even a cigar-store Indian, that no craft can swing from her tack to sail on the opposite tack, with her sails "full." The margin of "full," in time, is unlimited. A vessel's sails can stand "full" a week, which fact makes the "full" ridiculous, as being a moment at which to start a split-second watch for the measurement of the time the maneuver takes. The revolving—turning—of the vessel commences on the instant that the sails shake. From "shake" to "full" always limits the time consumed in tacking ship.

"Leech."—It was ludicrous to read in a report, published in a leading daily, when referring to the "sit" of a sail, "the forward leech of the mainsail." Every man on the American coast should know that the edge of a fore-and-aft sail, which is attached to the mast or to the stay, is called the "luff" in all craft, from a canoe up to the vessel of thousands of tons burthen. As a nautical idiomatic term "luff" is free from all ambiguity, logical or technical. Being the edge of the sail that is nearest to the wind, it indicates to the helmsman when the vessel has luffed sufficiently or is "by the wind" close enough to keep her course and not lose headway. In other words, the "luff" of a fore-and-aft sail gauges the luff of the vessel. Hence the practical congruity in the terminology. Smyth defines it in one place as the "weather leech," and in another as the "hoist of the sail." But British sailors—considered the seamen *par excellence* of the maritime world—are not conversant with the distinctions and differences in nautical nomenclature that have arisen between the two separate classes, of fore-and-aft and square-rigged seamanship. Obviously, too, an order given to get a pull on the "forward leech" of a sail, while literally correct perhaps, would create a mutiny aboard an American schooner.

"Tacks Aboard."—This old nautical phrase, which signifies the tack on which a square-rigged vessel is sailing, has no relevance to the sailing of a fore-and-aft rigged craft. The only tack fore-and-aft sails have is always aboard; for it is fast, permanently, to the mast, amidships. Consequently, the tack, or tacks, of a schooner, or a sloop yacht's sails, can be neither starboard nor port. No figure of speech, nor thought; no idiom, nautical nor naval, will, in the slightest degree, support the application of this old-time sailor phrase to a description of the navigation of a fore-and-aft vessel. Used as it has been in the reports of yacht racing, in some newspapers, it is an obvious absurdity.

"Pleasure Yacht."—Some time ago, an esteemed marine and naval daily contemporary, referring to the movements abroad of foreign yachts, wrote in its editorial columns, "the pleasure yachts." This tautological tidbit was received by cable across the Atlantic, said the editorial lucubration, which fact makes it appear to a man "up a tree" all the funnier. When did anybody ever see or hear of—commercial or mercantile—a working yacht? A yacht never was nor can be a vessel of burthen, or used for purposes of commerce. Since the first one was built by Phineas Pett for the young Prince of Wales, Henry, in 1604, at Chatham, England, yachts have always been pleasure vessels. The word is supposed to come from a Teutonic root, mean-

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ing, in some of its forms, to chase, and the word has long meant in English a swift pleasure craft. There is no ambiguity about the term yacht, either in its origin or in the usage of the maritime world. In extenuation of this unique diction, it can be said truly that the United States Government has invented a class of vessels (steam yachts) that are listed in this absurd category. The heading in large type of the certificate issued to all steam yachts by the Treasury Department of our great country reads "Pleasure Yachts." This governmental document—headed so glaringly with a phrase, the significance of which carries on its very face a tautological, nautical stupidity—must, by a special provision in the law, be prominently exposed aboard the vessel. Consequently there has been for years a display made to the maritime world of the ignorance of some United States officials. Ludicrous as it certainly is, one cannot help querying the beneficence of Civil Service examinations. Yet little else can be expected of a government bureau whose intelligence in naval affairs allows such an "ignorantism" as "breadth of beam" to creep into one of the Revised Statutes.

"Reach" and its inflections are terms that of late have been much affected by writers on the sport of yachting. For some reason or other, "authorities" have cut loose from well-established nautical usage. The term, in its nautical metaphorical sense, has been worked to death. Reach is a household word, and its original meaning is beyond all dispute. To reach is "to extend," "to stretch," "to thrust out," "to put forth" a limb or member, with other cognate significations, all of which expressly declare an effort on the part of the subject. From time immemorial sailors have always personified their ships with life and intelligence. Some skippers of the present day, unconsciously perhaps, talk to their craft when they are sailing in competition with other vessels, and a prominent naval writer—Bassett—tells of a notable Commodore in the United States Navy, who, when carrying a press of sail, would talk to the mizzen-mast about the propriety of taking in sail, etc. The ship being always personified, the sailor's figurative language is based on human physical actions, or motions, and, as DeQuincy has said, the sailor, in the exercise of his imagination, when talking, errs always on the side of brevity. He is, in fact, ingenuous without affectation. Consequently, the figurative sense of a sailor's words has a congruous proper relation to their primary meaning; in short, a sailor's metaphors are not far-fetched. In eulogy of his ship, he may say, "she can do anything but talk," "she can fetch where she looks," and she "reaches," "is reaching," "fore-reached on." When, then, is the suggestion through metaphor that a vessel in motion "reaches," "is reaching," or "fore-reached on" compatible with the sense that these terms primarily bear? is a question that naturally arises.

Motion is a material thing, when the cause is not plain, or obvious to the senses, is suggestive of life; and a vessel appears the most alive, or her resemblance to a sentient thing is the greatest, when she moves contrary to the wind and sea, seemingly actuated by an inherent force. This is the case when she is "in stays" and "moves," "ranges" or "forges" ahead, by virtue of her momentum, with all her sails shivering in the wind. Real situations, rhetoricians tell us, are always pledges of a "real natural language," and the sailor, when he sees a superiority in a vessel on this particular point of sailing, exclaims nowadays, and did centuries ago, "Look at her reach!" "See her reach!" In the exuberance of his objective knowledge, he does not say "see her walk," "see her dance," nor "see her run," but as he looks at the effort, the attempt, the stretch made by the vessel in opposition to wind and wave to gain ground, to get ahead all the distance possible before she may lose her way, the sailor says "reach." This fact is beyond all controversy.

When sailing as close to the wind as is possible, as a vessel does when "working to windward," in nautical phraseology, she is "on a wind," "by the wind," or "close hauled." All three of these locutions are synonymous. Any one of these phrases, in its nautical signification, is embraced in the metaphorical term "reach" and its inflections. Obviously a vessel, when sailing close hauled, is in the situation of making an effort against the wind force, the power of which is so plainly manifest to the senses. That she is then striving, straining, attempting—that is, "reaching"—is evident from the fact that she always is pointing or aiming at a distant point she can never attain; that her [illegible] a direction

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other than the one she actually sails; that she falls always to the leeward of her course, by compass, in her constant contention with a tangible force of the wind on her "fore," that is, her weather bow. She does not fall off, drive off, or swing off to this obvious force as, apparently, she should do. The constant, lateral resistance of the water under the sailor's feet—a force which is neither tangible nor visible—counteracts the power of blustering Boreas, and the ship, in obedience to paradox, moves forward—that is, she sails. In this situation, it is no great strain of the imagination on the sailor's part, this condensed metaphor, "reach," of nautical language, which the oldest and best usage warrants.

"Reaching," said a prominent New York City daily, *ex cathedra*, is "sailing with the wind free but not aft." Sir George Nares, a British authority—in "Seamanship," London, 1882—says that going free "with the wind on the beam or quarter" is "running." With him, "running" is also "off the wind," or sailing "large." Admiral Smyth says (italics mine), in his definition of reaching, "a vessel is said to be on a reach when she is sailing *by the wind* upon any tack; she also *reaches* ahead of her adversary." It cannot be disputed that James Fenimore Cooper, a most charming descriptive writer of sea tales some years ago, who had served, too, as a seaman and officer in the American Navy, had some idea of the proprieties in sea language. He makes the oracle of the Sea Green Lady, in his fascinating story of the Water Witch, say (italics mine), "'Tis by many *reaches* that the leeward vessel gains upon the wind."

That a vessel sailing with the wind "free" is, in any sense whatever, "reaching" is glaringly absurd, and no authorities are needed to support this contention. The technical nautical phrases that are embraced in the metaphorical terms "reaching" and "running" define the various positions of the vessel, relative to the point or direction from which the wind blows. As referred to the compass card, "by the wind" means that the vessel is sailing as near to the direction of the wind as is possible, and that her course is dependent on the strength of the wind and its variations in direction. The vessel, then, is "close hauled," "jammed" on, to or against the wind force, and sails within, say, four points of the wind. From this angle, or point of impelling force, round to a right angle, when the wind is on the beam, or blowing across the ship, the vessel moves obliquely toward the wind. In her progress through the water, then, she is always "looking at," "stretching for," attempting to *reach* the point whence the wind blows, and the apparent propelling force is located in the windward forward quadrant of the compass card.

When the wind blows on the beam, she can swing her head either "off" or "on," and still hold her progress through the water. Then she is sailing, or begins to sail, "free." Swing her head off still further until the wind blows in the windward after quadrant of the compass, and she is sailing "off the wind"; and until she swings so that the wind blows on the quarter—forty-five degrees of the arc—the vessel (always "free") sails "large"—to borrow an old square-rigged sailor's phrase. When blowing on the quarter and round to the taffrail, the wind chases her, and the vessel "runs." Very obviously, when the wind blows from any point in the after quadrant, the vessel is always sailing away from, not toward, the wind. How, then, can it be imagined that, subjectively viewed, anything in motion "reaches," or is "reaching," at, to or for a point, or place, of departure; or at, to or for a force that is behind?

"Head reaching" has no more place in nautical phraseology than would have "head sailing." It is a spurious coinage, and has never been recognized by reputable authorities. "Fore-reach," however, is an old term which has no ambiguity about its signification, though some modern bookmakers have made a mess of it. It is, and must be, transitive in sense, for it means to gain ground on another vessel's bow from the leeward. A vessel does not "fore-reach" when she is in stays, as some dictionaries have it. She does "reach," perhaps, but "fore," meaning "in front of," and reach "sailing by the wind;" a vessel fore-reaching when in stays would be sailing in front of herself.

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A TURKEY HUNT IN THE SOUTHWEST

By Putney Clement

THAT wild turkeys are most adroit, sagacious and elusive birds, with a very proper estimate of man's perfidy, no one who has given study to wing-shooting will deny. Hunting them, in these days at least, is not a simple, careless and easy sport. Large as the bird is, its cleverness is in proportion to its size, and its ability to hide its bulk is a never-ceasing marvel to the most experienced. Sophisticated old birds are as shy as deer and hardly less fleet of foot; they are only less wily than a fox, and must be very hard hit before they will drop.

I had seen but one wild turkey killed before the hunt of which I am to speak, and that was when as a boy I was visiting in western Old Virginia. The details of an impressive experience at an impressionable age are clear in my mind to this day. It was, alas! during the forbidden season in the spring, when turkeys were mating and the cocks were gobbling. A melodramatic and tattered old negro, known as "Uncle Mose," took me and his murderous old musket after game. Coming to a mountainside jungle in which the gobblers were trumpeting their loud challenges, he built a blind behind which he ensconced himself and me, sketching the while in picturesque darkie dialect the method of his campaign. I remember very clearly his solemn injunction, "An' chile, when I done gits talkin' to Mawsta Turk, you lay dat still 's if you was a fool possum dis old nigger done cotched." Then he began gobbling imitation gobbles that I thought superb. It was not long before he had an answer. He pinched my leg and whispered, "Doan you breev, chile," then gobbled again, this time thrashing the ground with his old wool cap. Nearer and nearer the deceived bird came, and I heard his angry wings fluttering and scraping the ground. At last he seemed so close that I ventured to turn my head a little and peep through the brush. There, perhaps forty feet away, in front of the blind, was a magnificent cock, feathers erect, wings unfurled, looking so big I was frightened. He was evidently growing suspicious and was ready to jump, but just then the old musket rang in my ears with the roar of a field battery, deafening me and kicking poor Uncle Mose into a coil. I recall the swaggering pride of the old negro when he picked up the dead bird; what a hero even I felt; how Uncle Mose embellished the exploit in his account to the darkies at home, and how loyally I vouched for his thrilling narration!

But this was long ago. It is a distant journey now to available shooting districts. The magnificent game which was once common from Pennsylvania to Florida and from Wisconsin to Texas is on the eve of extirpation.

Ornithologists divide our wild turkeys into four species, but they are only slightly differentiated. The Florida bird is a little smaller than the other three varieties, two of which are found in our far Southwest and in Mexico. But all are so closely allied as hardly to deserve distinction. There is slight diversity in feather markings. But all the races have practically similar habits. They are all gregarious and polygamous. The females do not mingle with the males after incubation. In our hunt, the last of December, we always found gobblers and hens in separate coveys. There is many a battle royal between the cocks in the mating season. The males do not even gobble after their harems desert them, though the "quit, quit" of the hens may be heard the year through. For the most part both sexes are found in small flocks, but scatter to hide when disturbed by the hunter. They roost in trees, preferably beside some stream, and however widely they may separate in search of food, nearly always return to the same roosting places unless frightened by pot hunters. Specimens of the *Meleagris gallopavo* (that being the mellifluous name which science has given to our most widely distributed species) have been taken weighing as high as forty-five pounds.

I was one of an enthusiastic party of four turkey hunters that entered Indian Territory one winter day before the [illegible] now

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known as Oklahoma was made public by the government. Our outfit had been made up at Henrietta, Texas, and it consisted of two teams and wagons, one laden with tent, provisions, etc., the other a lighter spring vehicle for more rapid travel, and adapted to exploration, and even, in certain exigencies, to chasing game. Beside our cook we had a colored teamster who was guide as well. A day had taken us across the northern half of Clay County, Texas, and over the Red River, and the first night saw us in camp on its sandy northern banks. We had shot some quail as we journeyed and the first camp supper of our trip was graced by that delicious game. The dawning of the first morning out was so full of beauty as to be unforgetable. Though December was waning, day came warm and mellow as in our northern season of Indian summer. The sky was cloudless, the air breathless and warm, yet clear as mistless mountain air. To the north the rolling prairie billowed into the blue distance under a sky of opaque blue. Something about the wide sweep and beauty of things there made one feel puissant. God's untrammeled earth, flowing away on all sides into the heavens, was as sublime as the sea—it seemed to loosen the girths of one's existence. Where dry creek beds crossed the prairie they were fringed with leafless cottonwood trees, post oak and sometimes pecan. The dry grass of the prairie, sometimes waist high, and the stretches of scrub jack oak looked like good cover for game. Patches of buffalo grass promised a change of fodder for our teams. Behind us the somnolent Red River spread its winding width of yellow-red water. How delightful and inspiriting it all was!

Before sunrise we were on the march north. Two hours' driving, in which time we flushed two or three coveys of quail, brought us to the banks of Beaver Creek, and there leaving the darkies to follow with the teams, we started on ahead with dogs and guns, keeping in sight of each other. Our guide told us we might expect turkeys from this point on. Now and again the dogs came to a point on quail and some fine shooting was sacrificed. Two of the party did condescend to shoot prairie hens, but in the main we disdained anything smaller than the royal turkey. We came to a halt for dinner, however, without so much as a sight or a sound of one. But toward two o'clock in the afternoon march, I found myself a mile or two to the left of the party and in the face of better luck. One likes to tell how he dropped his first wild turkey, though the event was rather a tame affair. As the prairie chicken proved the easiest, so turkeys proved the most difficult winged shooting I had experienced. I kept my dog well in all the time, never letting him get over fifty feet away and the longest range at which I succeeded in dropping one of these big birds was about eighty-five or ninety feet. On the occasion of which I am now speaking I had just come over a bit of high ground. My pointer crouching low and trembling in an unusual way made me suspect unfamiliar game. I had number four shot in one barrel of my gun and number six in the other and three and a quarter drams of smokeless powder behind each charge. I walked cautiously straight to the cover, speaking to steady the dog. The bird was hid in a little patch of high broom sage nearly circular and about twenty feet in diameter. All around the cover the ground was nearly barren. I felt certain from its nature that my bird could not escape by running away; it must take to wing. I closed in slowly until I had passed the dog and then suddenly my eye caught the unfolding of a large brown mass at the right verge of the cover and my ears were fairly stunned by the noise made. So formidable the bird, so startling his sudden rise, that for a full second I stood rigid as a wooden image. He had risen not twenty-five feet from me, and flew straight away with great speed. There was no fluttering at the rise. He seemed to spring ten feet from the ground as his wings caught the air. I brought my gun to bear and emptied both barrels in such close succession that there seemed but one report. Even then my quarry did not pitch to the ground, but sank slowly with the grace of a hawk. In my excitement I had scarcely taken note of the rise of three other large turkeys to the right. I saw them now, perhaps a thousand feet away, making for the Beaver, and as I saw they must be flying straight toward my friends I was content to let them go. Indeed in scarce a minute's time I heard the crack of a gun and wished it the good luck it proved to have. I stepped forward and picked up my first turkey—a huge gobbler weighing over thirty pounds. No further luck that afternoon, though I had one more shot and missed a fair mark.

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Our first day proved one of our best. Two of us had a turkey apiece, our best shot brought in two, while one of our party despairing of turkeys had turned in to shoot quail. The second day, only one turkey was killed, and the forenoon of the third day brought us to Fort Sill. Here we crossed the Cache and in the afternoon found ourselves among the rocky bluffs lying to the west of Mt. Scott and to the north of the Wichita Mountains. Upon the banks of a little creek, a tributary of the Cache, we made camp and enjoyed four days of fine sport. Of quail there was an abundance when we wished to vary our diet. Turkeys, too, were more plentiful than we found them elsewhere. A few plover were shot. One of our party killed two deer. But hunting among the rocks in these uplands, though exciting, was difficult sport. The dogs were at great disadvantage. Wounded game and often dead birds would fall into crevices and be lost to us. After four days in this locality we pushed on farther north across the Washita and Canadian rivers. We had glorious weather; there was only one slight snowfall in the three weeks we were gone, and we recrossed the Red River with twenty eight turkeys and three haunches of venison, beside all the quail which we thought we could use without waste. We had eaten beside this game, plover, 'possum and prairie chicken, and experienced no real hardships. Both the Indians and the white settlers we met with were most civilly disposed, and many parts of the country we traversed were a delight to the æsthetic sense. One idyllic ravine just north of the Canadian River, where we had made a camp on a slope that protected us from the cold north wind, will long remain in the minds of all of us. A little creek hurried through it as if eager for the river to the south; the banks rolled away up graceful acclivities in natural terraces; the hilltops were covered with fuel for fire and succulent fodder for teams, and above all within walking distance was an abundance of all the game I have mentioned.

I have said wild turkeys are very fleet of foot. Before we knew better we had not a few exciting chases in our spring wagon. Our horses, it is true, were not thoroughbred, but considering the nature of the ground the bronchos made as good speed as could reasonably be expected of more valuable animals. At times we would come upon flocks of turkeys from one to two thousand feet away, and in the callow, early days of our hunt there would ensue some literally stirring races. The turkeys glided over the ground as if so many bundles of feathers, cyclone-driven, and disappeared in some grass or bush jungle. One exciting pursuit of about sixty or seventy gobblers I remember carried us three or four miles, and we saw the birds run to cover in a comparatively small polyhedral patch of sage brush. Upon our belated arrival we anticipated exciting shooting. We surrounded the retreat and put in the dogs, but not a bird could we raise. We thrashed over every foot of the cover without any better results. The ground all around the cover for a mile or more had been under our eyes and we had noted carefully that no birds escaped. But where did they go? It seemed as if the earth had swallowed them. It was a constant surprise to us how hard this game must be struck. I should think that one hundred feet was the longest range at which any of the party succeeded in wounding a bird severely enough to secure it. When a turkey hen is frightened by animals she frequently gives utterance to her plaintive cry, but she is as silent as the cock when approached by man. They often prefer to trust to their feet rather than to their wings, and as our cook remarked, "Dey's sure prime sprinters." As illustrating their wonderful ability to hide I give this instance: I killed a turkey and hung it in a post oak tree on the edge of a wooded strip until I should return to camp. When later I passed that way, having another turkey with me, I found my first dead bird gone. My instant thought was that it had fallen into the grass under the tree and I searched the ground around carefully. Not finding it, I concluded I had mistaken the place and walked two or three hundred feet away for observation and calculation. Having satisfied myself that there was no error I returned and searched the ground with the utmost circumspection. Suddenly I discovered the head of a turkey in the grass directly under the oak about which I had been tramping and searching. I made no doubt that it was my game and wondered how I could have missed seeing it in my search. I stooped to pick it up and was never more startled in my life

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than I was to see the eyes open, the head move and simultaneously a huge bird spring into the air. I was so close to it and so thoroughly startled at what seemed the resurrection of a winged corpse that it is needless to say I didn't shoot. I may add that another member of our party, passing that way, had carried in my first dead bird.

One of our hunters had an exceptional experience near the Canadian River. One of his dogs flushed a large turkey hen beyond range. He marked carefully where she settled, and keeping his dogs behind him approached cautiously to very near the exact spot where she had alighted. He was sure she had not been alarmed and felt that if he waited long enough and kept quiet she would leave her slight cover, which was in some high reeds on the margin of a little creek. Being warm and fatigued he sat down on a rock. After fifteen minutes' patient watch he observed not far away a quivering in the reeds, the dogs fell to trembling and crouching and uttering subdued whines; he had a vague feeling that large and perhaps dangerous game was at hand. He slipped a cartridge containing buckshot in one barrel and then rose to his feet. As he did so he saw through the reeds the yellow face and body of a panther—not a hundred feet away. Then as he raised his gun the turkey rapidly and shrilly cried out and leaped into the air between him and the panther. He shot the turkey, and in the time required to do so the large game vanished as if by enchantment, and he could find no trace of it. His dogs were so thoroughly frightened that for some minutes they fairly clung to his heels.

SINGULAR SHOTS

By Reginald Gourlay

ONE of the very trying things to the veteran sportsman is that polite but nevertheless immovable incredulity with which some of his most interesting and not very highly colored narratives are received by ignorant auditors. Of course, I don't deny that there is at times a certain element of romancing about some of our yarns. On the other hand, much that is really strange and interesting happens to the wanderer in woods and wild and desert places.

"Adventures are to the adventurous," so I'm about to inflict on the reader an account of some singular shots made by myself and other people (mostly other people), which I trust will not prove too great a strain on credulity.

Few of my singular shots were fired at big game. One shot, however, at this kind I well remember.

I was waiting for deer on a path that was virtually the only exit from a dense mass of thicket and cedar swamp. My hounds (three of them) were in the thicket and soon gave tongue in a way that convinced me they were on the track of no deer or similar timid animal, so I went through an intricate bit of cover to investigate. I suddenly emerged on a small, perfectly open beaver meadow, and there found sitting on his hind legs in the very middle of the little meadow, with the hounds baying at a respectful distance, a large black bear in an awfully sinful passion, with the foam dropping from his jaws, exactly as it does from the jaws of an enraged boar pig. I was armed with a twelve breech loader (smooth bore) loaded with cartridges containing five drams of powder and a single bullet.

The instant I realized the situation I fired at Bruin without delay or ceremony, but my hand was unsteady and my shot struck far back near the loins—not even crippling him. He dropped on his four legs and came straight at me. He knew well who had hurt him. Luckily the dogs were animated by the shot and ran in on him; one of them, the youngest and best, jumped on his back and tried to seize his ear. The bear rose on his hind legs and literally wiped the poor brute like a fly, killing him instantly.

As he did so I fired again and the big bear fell stone dead like a shot snipe. The large round bullet had made a hole you could have put three fingers into. I had sighted at his chest, but as he was so near me

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the bullet had gone high and entered the base of the neck, breaking it. This was both a singular and a fortunate shot, for I might have fired a hundred times at him, wounding him mortally every time, and yet he would have had plenty of strength to reach me. Then it would have been his turn.

It is in wing-shooting that the greater number of singular shots occur. All sportsmen who know the habits of woodcock will agree that it is a more than extraordinary event to kill two birds on the wing with one shot, yet I managed, by pure accident, to accomplish this feat three years ago. If a friend, a Mr. W—— (now Classical Professor at Ridley College), had not been shooting with me, and seen this happen, I should have some diffidence about recalling the circumstance. We were beating a thin strip of cover, with a small open space between it and the dense wilderness of tangled bush beyond. W—— was a little behind me, and on the other side of the open strip. Half way up, my dog flushed a woodcock, which flashed across the opening, almost instantly followed by another. I was too late for the first, but managed to get on the last one, and drop him just as he was disappearing. He, of course, fell quite close to me. Just then W—— called out, "A good shot and a long one, too!" "Not a very long one," I answered. "I am afraid he's cut all to pieces." "No, he isn't," shouted W——, "he's flopping about here five yards from me." It was just as he had said; a chance scattering shot had winged the first woodcock after he had passed quite out of my sight, and I had got two birds with one barrel, killed two birds with one stone, as it were. Truly, a singular shot.

I once saw a friend do better than that. We had flushed a large pack of that splendid game, the ruffed grouse. The great birds were rising with a noise like a small thunderstorm in front—to right, to left—like the cannon in Tennyson's "Charge of the Six Hundred." In the midst of the mêlée, M—— noticed two birds going in opposite directions. He held on one until they crossed; then pulled—and got them both. This was really a wonderful shot, for it was intentional, while mine was accident.

A somewhat remarkable shot was achieved by a schoolboy of my acquaintance only last autumn. One half holiday I loaned him a gun and a small beagle of the "slow, but sure" variety, and he sallied forth into the nearest cedar swamp with a beating heart in search of rabbits, and also with a wild, uncertain hope that he might get a grouse. The hound soon started a rabbit —or, to speak more strictly, a hare (*lepus Americanus*). The youth saw the game come down the runway. He was coming in quite a leisurely way, as is often the case with the hare when hunted by a slow hound. It even stopped now and then and sat upon its hind legs. The wildly excited youth brought his gun to his shoulder, when its good genius probably informed the game that there was danger in the air, and it was off like a streak of brown fur. My young friend took a short, wavering aim, and of course fired a yard or two behind it. Bitterly disappointed, he was putting a fresh cartridge in his gun when he was aware of a tremendous commotion in a clump of bushes just in line with his shot. He hurried to the place, in time to be present at the last struggles of a fine ruffed grouse, whose evil star had caused it to come in for the better part of the charge meant for the rabbit. Now, the boy had no idea whatever that there was a grouse in his vicinity, his whole attention being occupied with the hare. This was a pure accident again, and altogether in its way the most extraordinary sporting incident I can remember.

But the luckiest shot of all was one made in the wilds of Muskoka by a young matron of New York City. She had accompanied her husband and brother on a deer-shooting trip. The party consisted of her husband, brother, a young lady friend, herself and a serving maid. There was also a guide from the neighborhood. They occupied a comfortable shooting-lodge—not a cabin or shanty—but it was at least twenty-eight miles from the nearest village and hotel, and was situated on the skirt of a great forest, in which was a fair quantity of deer and other big game. The only way to get to the village was by canoe down the river which ran past the lodge, and up a lake. It chanced one evening that they found they were out of some requisites necessitating an immediate trip to the village, so the lady's husband and brother set out in the canoe to [illegible] them. They were to be gon[illegible] [illegible] guide was

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off in the woods "locating" some deer, so the two women and the servant were left alone in the lodge for the night. A deer had been shot the day before, and its carcass was hanging up in a little outhouse. This fact probably accounts for what followed.

The ladies retired to rest in perfect tranquillity, to be awakened about one in the morning by a strange and ominous sound. It was the peculiar snarling howl of the great timber wolf. Looking in consternation from the windows, the ladies could see gaunt, shadowy forms slinking about the little clearing, howling now and then, and gradually drawing nearer to the little outhouse where the venison was hanging. The lady I am speaking of was frightened —very frightened—but she nevertheless possessed a deal of that valuable quality which is commonly called grit. She took a rifle of her brother's, opened the window, and with head thrown as far back as possible, and both eyes tight shut, distributed seven or eight bullets to various points of the horizon. At every shot a chorus of screams from her friend and the servant pierced the shuddering ear of night.

Now both the courage and persistence of the timber wolf are very much overrated. In this case, at any rate, before the echoes had ceased to reverberate with the shots and screams, not a wolf was in sight. They went, to return no more. The ladies barricaded the doors, awaiting the morning and the arrival of their male relatives in fear and trembling.

When the gentlemen did arrive, the first thing they saw on the edge of the little clearing was a great gray wolf, stiff and dead. A ball had hit him between the shoulders and broken his back. One of the lady's random bullets had found its billet.

WHY DO BIRDS MIGRATE?

By Lynn Tew Sprague

IT is probably safe to say that no phase of animal life has attracted more attention or is more full of scientific or romantic interest than migration. Food for fancy and for speculation it undoubtedly offered to observers older than Job or Homer or Aristotle, who allude to it, and with all the study and all the comment it remains in many ways a mystery as inexplicable to the modern scientific mind as it was to the idealists of the centuries that are behind us. Though the general thought immediately associates the habit with birds, it is by no means confined to that class, but in some form of practice, or at least of impulse, it is manifested by a multitude of animals ranging in size from ants to elephants, and including savage and even civilized man. Every sportsman knows that not a few varieties of fish migrate with a regularity and precision hardly less marked than birds, and a propensity under certain conditions to leave a given habitat and march by trying stages to other or former abodes, is especially marked in sheep, dogs, cats, and bees. Romanes, in his profound and scientific studies of animal intelligence, has collated and commented upon striking instances of the display of this instinct, and has printed as an appendix to one of his volumes some notes upon migration left unpublished by the great Darwin.

Romanes has shown that as manifested by birds with a degree of exactness and poetry to enlist the greatest interest and attract the most sympathetic and general study, the habit of migration presents two problems which science has not satisfactorily answered and about which there are many faulty hypotheses. Why do birds migrate? And how do they find their way? Much has been written since the volumes of Romanes were published, but no satisfying theory has ever been advanced as to the first of these questions. The superficial manner of settling perplexities in animal life which characterized naturalists of the old school, and which to-day satisfies popular curiosity, has no weight with modern scientific methods. Instinct was a word which in itself supplied explanation

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to all complex and obscure questions. But in the light of evolution the word is meaningless, or rather it is only another manner of propounding a question and not in any wise an exposition of a habit, practice or phenomenon. For instinct, in the light of science, is only inherited organized memory, and the question of how a practice, instinctively remembered or acted upon, originated, remains.

Now, in his recent book on bird studies with a camera, Mr. Frank M. Chapman, who unites the widest sympathies with a vast and exact knowledge, has incidentally made suggestions on migration which reinforce one side of an old theory if they do not quite construct a new one. He points out that with common birds of general distribution, instancing the robin, it is difficult if not impossible to tell whether or not the same individuals return to us. With certain species of island-inhabiting birds, however, we may be reasonably sure of the return of identical colonies. He instances several such groups of birds which have nesting grounds on particular islands and regarding the movements and habits of which during the nesting season there are very full data. Speaking of certain such colonies of tropical birds, he shows that their movements are not apparently influenced either by climate or food supply, but only by the breeding instinct, and that they seek retreats where the young can be reared with greatest safety. "Divested, therefore," he continues, "of the complications which ensue, when in studying the migration of birds, the question of food and climate must be considered, we have here the problem reduced to its simplest terms; and in the desire for seclusion during the breeding season, which induces birds to conceal their nests if possible, perhaps nearby, but if necessary after a journey of varying length undertaken especially for the purpose, we have a good and sufficient cause for the origin of bird migration. An attempt to explain the present manifestation of the migratory movement involves a study of the climatic changes to which our globe has been subjected. No doubt many birds controlled by heredity of habit make semi-annual journeys which at one time were necessary, but under existing circumstances are no longer required. Why, for example, should the bobolink winter south of the Amazon, while its ally, the red-winged blackbird, does not leave the eastern United States?"

Now, over a quarter of a century before Mr. Chapman's book was published, the great naturalist, Alfred Russell Wallace, advanced a theory which embraces this idea of seclusion in breeding, and adds the factors of food and the earth's physical changes. He asks us to suppose that the breeding propensities of any variety of migratory birds could only be safely accomplished in a given area, and that after the breeding season was over a sufficient quantity of food could not be secured in that area. He then pointed out that those birds which did not leave the area where their young were hatched when the season of insufficient food arrived would necessarily suffer, and in the end become extinct. He further asks us to suppose the breeding and the feeding area to have been at one time for the ancestors of the birds in question identical, but by physical changes of the earth to have gradually been separated. It would then become evident that a habit of incipient migration might have been established preceding and following the breeding season, and at last, by natural selection, become a well-defined hereditary instinct. This theory of Wallace's seemed most satisfactory to Romanes, and he was of the opinion that it was very emphatically endorsed by the records of Mr. Darwin's journals "which have shown that there is a general relationship between oceanic islands which there is independent reason to conclude have never been joined to the mainland, and an absence of migratory birds."

It may be added that the theories of simply drifting before cold north winds, or of pleasurable emotions derived from flying toward moist south winds, or following the sun in response to a need of longer days, or of the bird's finer senses, being "more *en rapport* with numerous meteorological phenomena," are superficial, restricted and unscientific, and also that from the standpoint of evolution and natural selection, the migratory instinct is, in the language of Romanes, "still shrouded in much obscurity."

But the instinct does exist, and the method of its working is not less difficult to explain than the instinct itself. By what faculty do the birds find their way across the thousands of miles traversed? As Romanes and all other enquirers poin-

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it is certain that many of the birds fly by night, that the young of different species make the southward journey alone, and that in the long flights large spaces of ocean, over certain points of which land is invisible, are crossed. Therefore, it is difficult to conceive of sufficient guidance being afforded by more acuteness of any or all of the five usual senses. This has led to the supposition of a sixth sense, which some have called "the sense of direction."

Now, if we pause to think of the achievements of our small song-birds, we are no less lost in wonder than captivated with the poetry and romance of their semi-annual winged marches. The tiny little minstrel comes to us from his winter home among the palms in Central America or Mexico or Florida on his frail wings. He travels leisurely and most often in flocks, stopping for days sometimes when pleasant spots and good feeding places are found. With many varieties the males come first, followed, perhaps, two weeks later by the ladies. When the weather is cold and bad he will sojourn in some ravine or grove of evergreens till the days are fair and the wind comes softly from the south again. He is fond of traveling on warm moonlight nights in April and early May, stopping by day to feed and to rest his wings, and to sing his delight of the return of spring. And he will travel thousands of miles, perhaps straight to the tree where he nested and loved in the pleasant weeks of the summer before, without railroads or geographies or compasses or any of the learned trumpery of men. And by the time he is well rested and has smoothed his feathers and looked over the ground, along come the frolicking bevies of ladies, unhampered by trunks or false feathers or other shams, and the courtship begins. There are morning matins in perfumed depths of the woods, subdued moonlight madrigals, with mellow notes of running brooks for accompaniment, vesper songs as the setting sun yellows across green fields, moonlight serenades out of living emerald tapestries not made by hands. Is it not just the existence that our poets have dreamed of through the centuries? And when the wife is won, the home built, the young reared and taught to use their wings, he seeks his old friends of the northward flight and leads a careless, happy life with them till cold autumn nights remind him of sunnier lands, and that it is time for him and his companions to again enact a great mystery to science.

Not only, then, is there no satisfactory explanation of why he leaves a sunny land in the south, where food is apparently plenty and climate is most inviting, to come north to breed, but neither is there any satisfactory explanation of how he succeeds in accurately guiding himself on his long flight. What is known as the orientation of birds, or the homing instinct in birds, calls for the exercise of a faculty which is analogous to if not identical with that required by the migratory practice, and Captain Reynaud of the French army has recently made public a series of experiments with homing pigeons which goes far to establish the possession of this sixth sense of direction. Mr. Chapman last year published translations of Captain Reynaud's articles. Briefly stated, this officer took every means to confuse and perplex his birds, carrying them in movable cotes, breeding birds there, and even transporting certain pigeons to various points under the influence of chloroform, and the result of all has been to convince him that the pigeons were guided by something other than the use of any of the five senses. It has made him a confirmed believer in the hypothesis which Romanes thinks most plausible, that the faculty, to use the words of Romanes, "consists in an automatic process of brain registration, every change of direction in the out-going journey leaving behind it a record in the cerebral nervous system, and therefore in the mind of the animal, so that as a total result, the general direction of the starting place is retained in the memory."

Captain Reynaud, it may be stated, was in charge of the service of homing pigeons of the French army, and so had ample means and facilities for investigations, probably the most extensive and comprehensive of the kind ever made. He is inclined to believe as the result of them, that the homing instinct, when exercised over ground familiar to the birds, may be and often is the manifestation of intelligent observation and memory; but he is certain that distant orientation and semi-annual migration are the result of the exercise of this sixth sense, or, in his own language, are "based on the functional activity of a subject organ which is situated in the semi-circular canals of the ear and which registers mechanically the road passed over."

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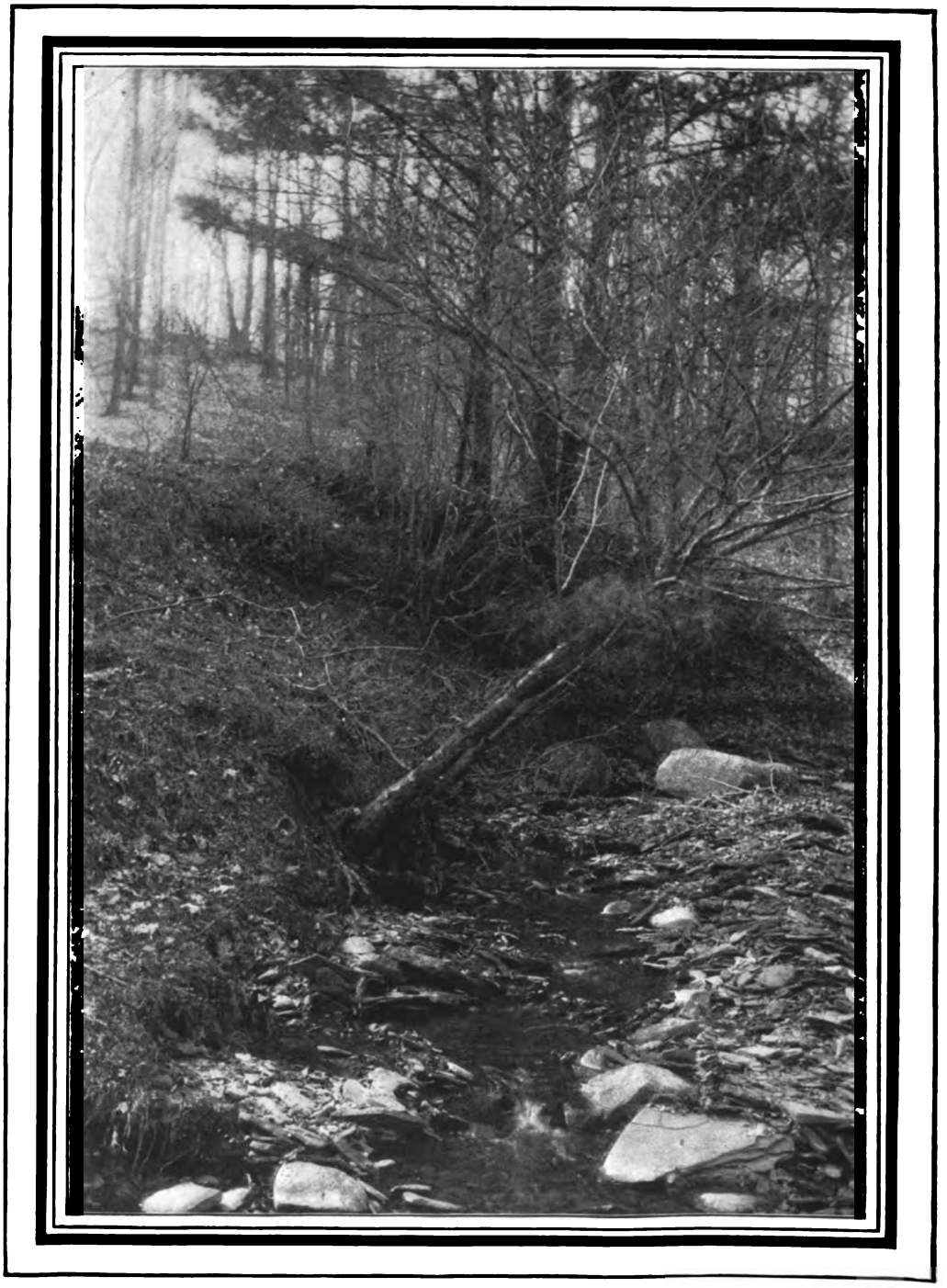

This sense of direction, many scientists affirm, is not confined to birds, but is possessed in some degree by all animals, including man. There are a number of well-authenticated instances of the return to former abodes by horses, sheep, pigs and cattle, which seem best explained by this hypothesis. In the case of man, the in-

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stances of savages finding the way without the possibility of any landmark being used will occur to us all. Every sportsman, if not at some time conscious of "feeling" the proper direction when all means of calculation is lost, will recall some companion who possessed an obstinate impression of direction apart from mechanical reckoning, that always proved well founded.

II.

But turning from the severe scientific side of this subject, we may find interest in the mere facts of the migrating habits of our familiar birds. It is not too much to say that there is a constant ebb and flow in our bird life during the warmer months. The great majority of individuals, even of those species which we are accustomed to speak of as permanent residents, as a matter of fact move south. Many of our winter birds move north in the spring, and every part of the country has transient visitors which winter to the south and nest to the north of it. So that one species is arriving about the time another is departing, and there are always opportunties for new experiences for the careful observer. In the Middle Atlantic States there are but a few days when the movement appears at a standstill. Even with birds that nest here, one has only succeeded in identifying some one species of warbler before he is aware that another is gathering for the southward journey. It is much easier to note the spring arrival of birds than the fall departure. They come to us in bands, sprightly, tuneful, and often surprisingly familiar. They burst upon us and joyfully announce their arrival. But in autumn even the most neighborly species are shy and silent, and not a few withdraw to groves and swamps previous to departure.

By the last of July, bird song has all but ceased. August is a month when birds seem out of spirit, to have lost heart, and suddenly to have conceived a deep distrust of humanity. A few species seem to steal away thus early. If you would note many birds, you must visit sedge jungles or out-of-the-way evergreen groves, or thick bosky, unfrequented swamps. In September, the prospect of the adventuresome journey before them probably proves inspiriting. At least many species are suddenly more frequent, and appear in a new dress of feathers, and by the first of the month the continuous southward flight has well begun. By the middle of the month, about the first of the northward nesting birds which come to us arrive, and our winged summer residents are now rapidly departing. The southward flight continues into November, the last to leave being certain of the blackbirds, sparrows, robins, bluebirds, and the meadow larks and woodpeckers which do not foolishly remain through the winter—a vast majority. The species which arrive first in the spring are as a general rule the last to depart in autumn. Many birds gather in flocks preparatory to departure, and some do this as soon as their young are able to care for themselves. Large bands of blackbirds congregate as early as the middle of July, and often in the bushes and trees with them we note, already, the arrival of tree sparrows which have nested to the north of us. Of our more familiar birds it may be said that early September takes most of the orioles, hummingbirds, martens, and some of the warbler family that nested with us. The last of the month the majority of the kingbirds, rose-breasted grosbeaks, wood-thrushes, warbling vireos, and the two varieties of cuckoo go. October takes the majority of our common, familiar species. In the first weeks of this golden month most of the vireos, catbirds and wrens, many of the warbler family, two or three species of the fly-catcher family, the hermit-thrush, some of the blackbirds, are southward bound. Then one sees long files of aquatic fowl above the water courses. The last weeks take almost all of our remaining birds, the ovenbirds, phœbes, cheewinks, most of the sparrows, many woodpeckers, most of the field-larks, etc. After mid-November only such species as are hardy winter residents are to be noted in this latitude, and very few of them.

The punctuality with which certain species arrive and depart is most remarkable, but the majority are to some extent affected by the particular season—whether advanced or delayed, and by locality and topography. Along the coast the spring migration is apt to be from ten days to two weeks earlier than in the interior, and it is earlier along the river valleys running north and south than across high-lying, broken, hilly country. The data for fall migration, for obvious reasons, are neither so full nor trustworthy, but on the whole the southward march would seem to vary less. Comparison of tables would

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lead one to infer that there is in fair weather an average difference in the spring arrival of our most common species of birds between the latitude of southern Ohio and central New York of from three to ten days, but a stress of bad weather will often delay the nortward flight two weeks or even longer.

American species of birds have frequently been met with in England, and European birds less frequently in America, when there was no suspicion of importation by man. It is not positively known that some varieties even of coast and land birds could not have crossed the sea under pressure of storms; but as the foreign species found are generally those which breed far to the north, the accepted theory is, that by confusing direction, the birds made the passage to alien lands by way of Greenland, Iceland and Scandinavia. It is probable that all species of birds, if we were in possession of all facts, would be found to be to some extent migratory. The fact that tropical birds frequently seek different localities in which to breed goes far to prove Mr. Chapman's simple hypothesis.

Whatever we may think of the superstitions of some of the old-fashioned naturalists, we are compelled to admit that many of them displayed a sympathy with bird life and a devotion to its study which are not surpassed by their more scientific brothers of to-day. Their ascription to their feathered friends of many human traits and qualities has even been shown to have real foundation, and some of the old theories of migration are perhaps, after all, not without real value, as they certainly are not without real poetry. For instance, the zoological books of Jules Michelet, celebrated as a historian, display a tenderness and warmth of sentiment for the bird which is nowhere surpassed. He has pictured with touching compassion the perils of the migratory flight. and he has painted pictures full of pretty fancies and embellished by true and graceful imagery. He feelingly asks what impels his darlings of the air to the long-winged marches. Hunger or inclement weather should not drive them from the sunny land of France. We may premise, what everyone knows, that birds, like insects, instinctively fly toward the light, and that the loss of life during nocturnal migratory flight that results to these tiny yachts of the upper regions because of the coast beacons erected as guides to the ships of the sea is enormous, and then listen to Michelet answering his own question. "It is the need of light," he replies. "Even as the plant unalterably follows the day and the sun, even as the mollusk rises toward and prefers to live in brighter regions—even so the bird, with its sensitive eye, grows melancholy in the shorter days and gathering mists of autumn. That decline of light, which is sometimes dear to us for moral causes, is for the bird a grief, a death. Light; more light! Let us rather die than see the day no more. This is the true purport of its last autumnal strain, its last cry on its departure in October."

Even if sentiment had not given a thousand valuable hints to science, we would still read Michelet for the love his heart betrays. And whatever may have given rise to the migratory habit, we may find romance in the southward flight even now taking place, and let our fancies shape pretty stories from known facts. The renewing of acquaintance when the birds gather at the edge of some wood or in the recesses of some swamp, the introduction of the young birds, the discussion of a route, the narration of ludicrous or thrilling summer experiences, the choosing of captains, the comedies and tragedies along the way, the heartsome escapades with thankless human agriculturalists, the outwitting of enemies that creep and crawl and fly and shoot, the final adieus and separation in lands of orange and palm—all this and much else that imagination suggests carry the heart back across the graves of centuries to a time when our race itself was young and untrammeled, and free to wander toward receding suns and to rejoice with the return of light and to sing the delight of life in the great out-of-door world.

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THE SPORTSMAN'S VIEW-POINT

BY CASPAR WHITNEY

Columbia the Chosen Defender.

Unless it was found impossible to get other sails for the *Constitution* (surely too strange a situation to exist), the choice of the *Columbia* to defend the *America's* Cup against the *Shamrock II.* is one not easy to reconcile with the comparative performances of the American yachts throughout their dual meetings. Not so much because of the actual record of the twenty-one races the two boats sailed—a record about evenly divided between them as to victories—as by reason of the potential speed the work of the newer boat suggested. Perhaps the choice was wise, though I frankly confess my inability to so indorse it; certainly it was conservative; yet it brings disappointment to a very considerable number of yachtsmen who believe the *Constitution* to be the faster boat in light and moderate weather, and that she has so demonstrated.

On the bare record of their racing, the *Columbia* has shown the more consistent form, and, as she is without question the best all-round performer among all modern racing machines of the ninety-foot class, her selection by the New York Yacht Club Committee cannot, at least, be called surprising. But it does not seem as if the qualities of the *Constitution* had received full consideration; though I wish not to be understood as implying lack of duty on the part of the Committee, who, if the truth were known, would no doubt have infinitely preferred that their choice fall upon the boat which the generous sportsmanship of Messrs. Belmont, Payne, Stillman, Bourne and Walters had created.

Yachts or Sails or Skippers. Which?

Two things seriously handicapped the *Constitution* during her racing: (1) ill-fitting sails; (2) extreme caution to avoid fouling in the jockeying at the start. After viewing the wretched canvas of the *Constitution*, it may be asked with some pertinency if there are not other sail cutters in this country besides those in the Herreshoff shop, and if so, why some of them were not employed to give the new boat sails which would serve her. The fact that the *Constitution* showed such reversal of her early winning form has puzzled people, but it is entirely explained by these poorly cut sails, which were, of course, best when new, and became worse and worse as they stretched, until finally they were beyond trimming. The caution with which the boat was handled in manœuvering at the start was entirely justified. Mr. Duncan naturally appreciated his great responsibility as manager of a boat which had been built to defend the Cup, and represented an outlay of a quarter of million of dollars. It was not his game to run risks of collision and damage in the trial racing; especially as he knew his skipper, Captain Rhodes, was not so clever at jockeying as the helmsman of the *Columbia*, Captain Barr. The latter, on the other hand, had no such feeling himself, nor respected it in another. Always a reckless, if a skillful helmsman, Barr has handled the *Columbia* masterly, to be sure, but with a spirit so unmindful of the rival as several times to menace the *Constitution* with collision. On such occasions Mr. Duncan ordered his boat to give way rather than take the risk of injuring it. Thus, and because of Barr's unexcelled skill in handling a yacht at the starting line, the *Constitution* got the worst of the start almost at every meeting. Personally, I have no doubt whatever that this alone meant the difference between victory and defeat in over half the races the *Columbia* won. These are the things which makes one feel that the *Constitution* has not been able to do herself justice.

If the difference between winning and losing rested with the helmsman, then the helmsman rather than the boats should have changed places. It is rather unfair to the boat, and distinctly hard on the gentlemen who subscribed the money for her building, that she should be thrown out, if a change of skippers and properly fitting sails would enable her to show her real form. So far as jockeying at the start is concerned, it is a

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question if it has not been carried to an intolerable point. Skill in getting a yacht across the line promptly and to windward is, of course, to be encouraged in every way, so long as the way is legitimate, but when the rights of the rival are trespassed and the safety of a boat threatened, cleverness is perverted to racing knavery, which should not for an instant be permitted.

Why Constitution Sailed Erratically.

If these patent facts do not explain the somewhat erratic performances of the *Constitution*, then they must be accounted for by some mystery not to be penetrated by any eye outside the inner Cup Committee circle. In the early light-air racing, the *Constitution* won invariably, but lost to the *Columbia* in strong breezes; subsequently with her mast hightened to hold the gaff in place, the new defender beat the old one on their first meeting in a good breeze. Over the short Larchmont Sound course, where the advantage of the start means a great deal, the results were about even between the two, until the *Constitution* discarded her old mainsail and bent on a new and much heavier one. Then she lost regularly. Putting aside the new heavy sail and returning to the old and lighter, though ill-fitting one, the *Constitution* beat the *Columbia* 1 min. 15 sec. to the windward mark in their last race, although she had started to leeward, had luffed out of a coasting schooner's way; on the run home, she fouled her spinnaker and lost her balloon jib topsail, but won by four seconds, time allowance included. That does not read as though the *Constitution* were inferior.

Most practical yachtsmen have, I believe, all along considered the *Columbia* the faster boat in any breeze above twelve to fourteen knots—but the *Constitution*, at this stage of her career, the faster in light and moderate weather. A careful study of her performances appear to corroborate such judgment. At first her sailing was consistent enough, but in the latter part of her career, and especially in the last half dozen races, while experiments were making with the heavy sail, her work was variable, and this, no doubt, had great influence on the Committee's decision. Yet this would not suffice, and there must be other reasons for the selection—reasons which are not known beyond the Committee, and good ones, for this is an able Committee, with a desire, paramount to all others, successfully to defend the Cup.

Whichever way it decided, difference of opinion was certain to ensue, with yachts so evenly matched, as are the *Constitution* and the *Columbia*. And being so evenly matched, the greatest regret is that the new boat could not have had a bit more trying out. As it is now, Mr. August Belmont and his associates have spent a large sum of money to publish to the world Mr. Nat Herreshoff's confession that in the *Columbia*, designed two years ago, he reached his limit.

That's an unhappy confession just now when the prospect of our losing the *America's* Cup never was so likely.

The Cup Not Yet Gone.

Perhaps it will all be over by the time this reaches the public eye; at all events the *Columbia* and the *Shamrock II.* will have met three times, and the tension will be very much less than it is now as I write, with the challenger reeling off stretches in the lower bay and outside at the rate of twelve and fourteen knots. The outlook for our losing the Cup to Sir Thomas Lipton appears very hopeful from a British point of view. None-the-less I incline to the belief that the *Columbia* will again successfully defend it, after a much closer contest than she had in 1899. A challenger tuning up right under our noses at such a racing gait as stretches of twelve and fourteen knots indicate, is, it must be confessed, apt to be somewhat disturbing to native enthusiasts; yet I remember following *Shamrock I.* on some of her preliminary trials off Sandy Hook when she, too, had periods of racing away so fast that my tug, which the captain swore was making "easily" twelve knots, was left as though anchored. We all know what the *Columbia* did to *Shamrock I.*: she beat her in one race 10 min. 8 sec., and in another 6 min. 34 sec.

It has been currently reported that *Shamrock I.* is much faster this year than she was last; but I have been told by those who are competent to judge, and in position to estimate, that she was very little, if any, faster when she met *Shamrock II.* in the early summer than when she lost to the *Columbia*. Sir Thomas allows the newspaper reporters to infer from what he says that *Shamrock II.* is ten minutes faster than *Shamrock I.* Perhaps she is—perhaps

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she isn't; her performances suggest the latter deduction to me. But accepting the most flattering estimate of *Shamrock II.'s* speed, we still have the fact to cheer us that the *Columbia*, also, on occasion, was ten minutes faster than *Shamrock I.*, and that today she is, without the smallest doubt, a faster boat than when she demonstrated her superiority to the Fife *Shamrock*. I do not believe we will lose the Cup—I almost wish we would, for the sake of the good it would do the game—but if we do, we'd rather it crossed the Atlantic in the *Erin* than in any alien yacht afloat.

Lessons from the Canoe Camp.

The annual camp of the American Canoe Association provided some lessons, not especially new to this year, which, in the present more or less uncertain racing life, it would be well for the Association officers to bear in mind. Time was when every man at the camp was a participant in at least one race; now the majority in residence are spectators, and the racers are but a handful. Therefore the race courses should be laid out within view of the camp, where the spectators congregate. This year the sailing course was entirely out of sight for its greater length, and much good sport accordingly missed by the onlookers. Another lesson of much more consequence was the one showing that in making up the day's programme, the more important races should be scheduled first, in order to insure a filling of entries for the lesser events, and those arranged solely for good fun. For instance, no one is going into a "hurry-scurry," or other race of the kind, if it is to be shortly followed by a Trophy or a Record event.

This applies with particular force when the total number of competitors for all races is as small as it was this year, and, indeed, has been for several years. The pity is, the number should be so limited. It seems to me the Association officers should get together and do some hard thinking on the question of how to put life into competitive canoeing. The racing machine changing yearly put the sport beyond the reach or inclination of the average, and little has been done since to re-enlist his support. His interest must be kindled again by sport-giving programmes, and held by plenty of events to which he is eligible without unusual preparation or expense. Cut out racing machines, and have very few events in which the average canoeman is outclassed. The events for the ultra racing man and craft should be very limited. Then, too, the Association should have a great deal more support than it now has from the clubs; on the other hand, the Association officials must strive to broaden their view and the scope of the annual meet; it has a tendency to take on too much local atmosphere.

This year the meet was held at Mudlunta Island, loaned by retiring Commodore Britton, near Gananoque, Ontario, and was average in attendance—though rather inferior in number of entries for the events, the quality of the sport suffering in consequence—though being fair as a whole. Purchase was made by the Association of an island about five miles from Gananoque, although it may not be used until 1903, as next year's meeting is more than likely to go to the New England Division, whence comes the next commodore, Mr. Louis Hall. This is desirable occasionally, and a meet at, say, Buzzard's Bay should be pleasing, but the regular camp of the Association should be in the St. Lawrence, where it has been almost continuously for years and where are the proper conditions.

Organized Rifle Clubs Needed.

There are no excuses to be offered for the sound drubbing American riflemen received the other day at Sea Girt, New Jersey, from Irish and Canadian teams, but it sounds strange to the native ear to be told that one of the causes of the defeat was inferior ammunition. Certainly only grossly incompetent management could be held accountable for cartridges improperly charged; for American ammunition, in the hands of those who know their business, is second to none in the world. Cheap ammunition and bungling management may have had something to do with the loss of the international matches, but the real reason was inferior marksmanship, due partly to the perfectly absurd situation which obtains in the militia, and varies in States where one rifle is used for drill and another, with a short, preliminary practice, for match shooting.

But below these causes for indifferent shooting is a deeper one, which has operated to lose America the first international match her teams have ever entered—men do not get enough practice at the targets. It is astonishing what a decline in target shooting there has been in the last ten or fifteen years.

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Twenty years ago there were shooting clubs all over the country, and American riflemen led the world in marksmanship. The American seems naturally to be a good shot, and requires but little practice in order to acquit himself creditably, but for this our present place among the world's marksmen would be a lowly one; except for the prescribed few days' practice at the butts in the militia, there is practically no rifle target shooting.

There is very much need in this country of organized rifle clubs, and a national union which shall encourage practice and hold a genuine national tournament every year. The New Jersey Association does its best, does very well and deserves commendation, but it is too limited and its sponsers are too local in thought and action.

American Riflemen Beaten.

The so-called "national" team, which met the Ulster County team from Ireland, consisted of five men from New Jersey, two from District of Columbia, and one from Philadelphia—Messrs. S. I. Scott, L. B. Wetherald, Frank Hyde, W. G. Hudson, W. De V. Foulke, W. W. Bull, B. B. Tuttle and W. S. Whittemore. They used the Krag-Jorgensen and some did very poor shooting; the team's average was fair. The Irishmen shot very well, but not remarkably. The scores were: 800 yards—Irishmen, 556; Americans, 560; 900 yards—Irishmen, 549, Americans, 515; 1,000 yards—Irishmen, 1,618, Americans, 1,558. The Irish team numbered Messrs. Thomas Caldwell, Robert Duncan, J. C. Sellars, W. T. Braithewaite, J. K. Millner, John Morgan and F. W. Henry.

In the other "international" match—between Canadians and Americans for the Palma trophy—the Americans. four from District of Columbia, and four from New Jersey—Messrs. G. B. Young, G. C. Shaw, H. H. Leizear, H. M. Bell, C. H. Springsted, and W. F. Whittemore—the general marksmanship was not so good, and that of the Columbia-Jersey team distinctly poor. It used the Krag, and appeared not very familiar with it, or with team shooting. The scores were: 800 yards—Canadians, 532; Americans, 525; 900 yards—Canadians, 519; Americans, 519; 1,000 yards—Canadians, 1,522; Americans, 1,494. The American team had been together only couple of weeks, and their work showed it. The Canadian team included Messrs. R. J. Davidson, Duff Stuart, Ross, W. H. Davidson, S. S. Paupst, A. Fleming, E. S. Kedden and Robertson. They used the Lee-Enfield rifle, and both teams had fifteen shots at each target.

In the other team competition, the District of Columbia won the Hilton trophy from ten teams of twelve men each, making 1,098 on the three targets, at 200, 500 and 600 yards. Canada, New York, Pennsylvania, New Jersey, Massachusetts, Maine, Maryland, Rhode Island, Ohio and the U. S. Marines were represented. The Essex troop tied the carbine team match at 205 (over 200 and 500 yard ranges) with the Pennsylvania squadron, but the better aggregate score of the Jerseymen over the longer range gave them the decision. Battery A, Light Artillery, Massachusetts, team—Messrs. Hale, Putnam, Amory, Rogers and Walcott—won the revolver team match; score, 596; with First Troop, Philadelphia; Troop A, Maryland, and Squadron A, New York, following in order. Lieutenant R. H. Sayre, of N. Y. Squadron, made the highest individual score, 130; Lieutenant Amory, of Massachusetts, being second, with 124. The conditions were ten shots at 25, 50 and 75 yards.

Captain William B. Martin, Second Regiment, New Jersey, won the Wimbledon Cup. This match is open to all citizens of the United States, and was presented, in 1875, by the National Rifle Association of Great Britain to the National Rifle Association of America, and has been since competed for annually, over a 1,000 yards' range. The shooting this year averaged poor; the winner's score of only 137 suggests how much in need are we of organized rifle clubs, and a return of interest in rifle shooting, particularly at long range.

Hippodroming the Trotting Track.

If there is a continuance of broken engagements and the hippodroming with which the present season has been already sullied, trotting men will forfeit the respect, as well as the confidence, of the public. We have grown callous to Thomas W. Lawson's boastful wagers and unfulfilled promises—no one outside of Boston now turns an eye upon the gallery play of this tissue-paper "sport"—but we should be sorry to see the owner of so great a horse as Cresceus setting out upon

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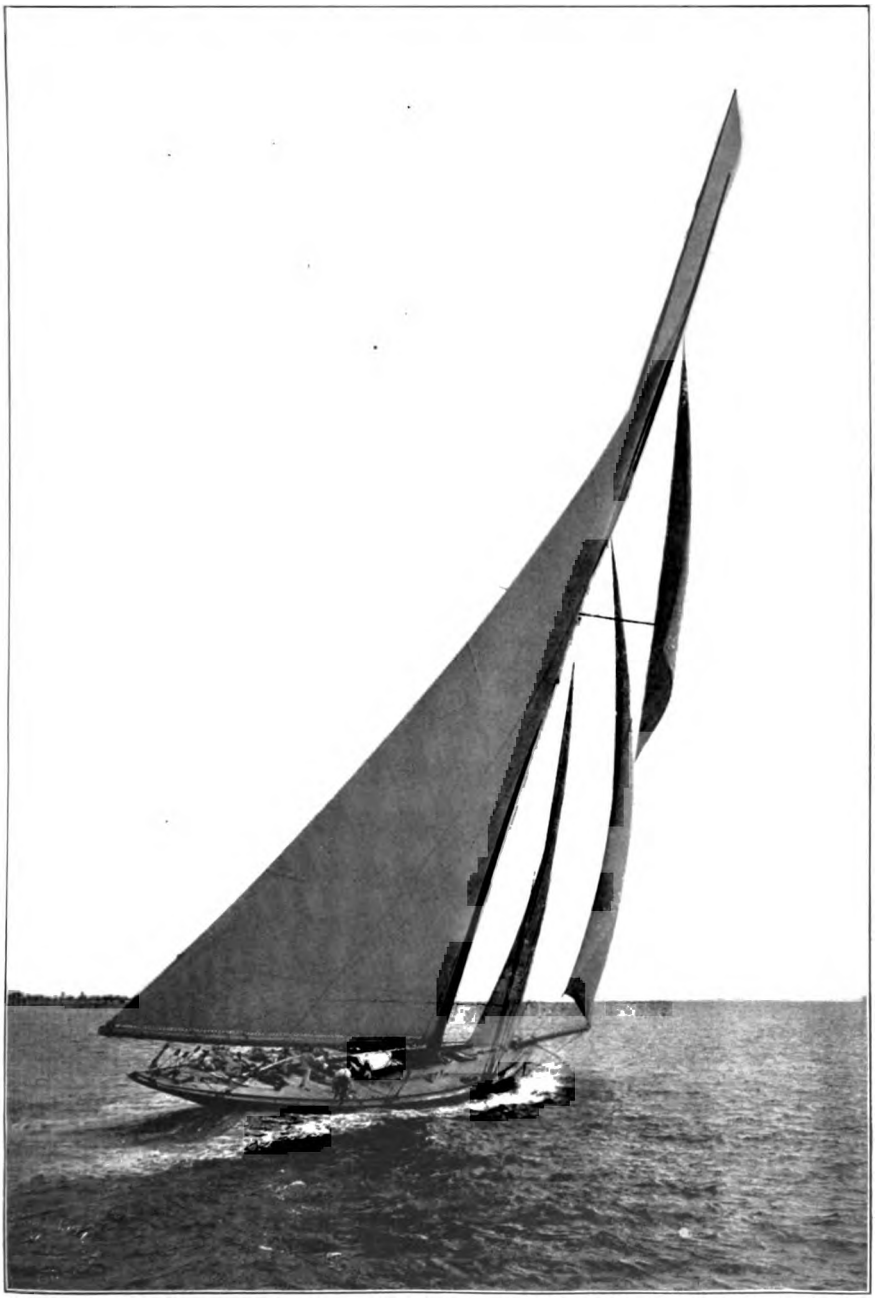

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SIR THOMAS LIPTON'S *SHAMROCK II.*, CHALLENGER FOR THE *AMERICA'S* CUP.

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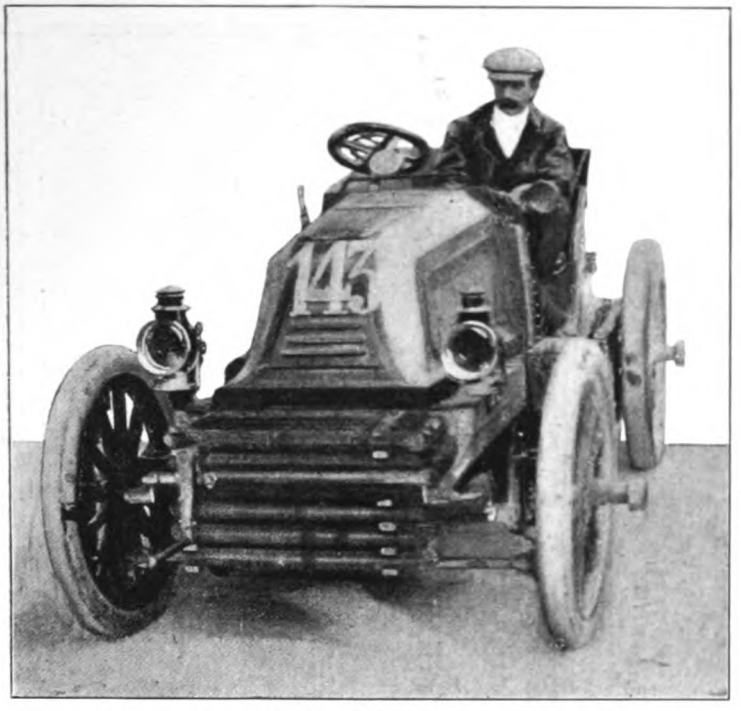

MR. FOXHALL KEENE, THE ONLY AMERICAN IN THE PARIS-BERLIN RACE.

the same road. It was neither a sportsmanly nor a fair act to a worthy opponent when Mr. Ketcham declined to start Cresceus against The Abbot at the Hartford meeting, after having beaten him in a somewhat unsatisfactory series at Brighton Beach. It was worse than unsportsmanly, for Mr. Ketcham was the party to a definite agreement to enter his horse, and he broke it, in order that he might start Cresceus against time for a considerable gallery purse at Providence. It was a very ungenerous bit of business; indeed, it was business through and through, with no sport in it. Subsequently Mr. Ketcham drove a hard bargain with The Abbot's owner for another match to be decided at Readville; we distinctly do not approve of Mr. Ketcham's course—it was not creditable.

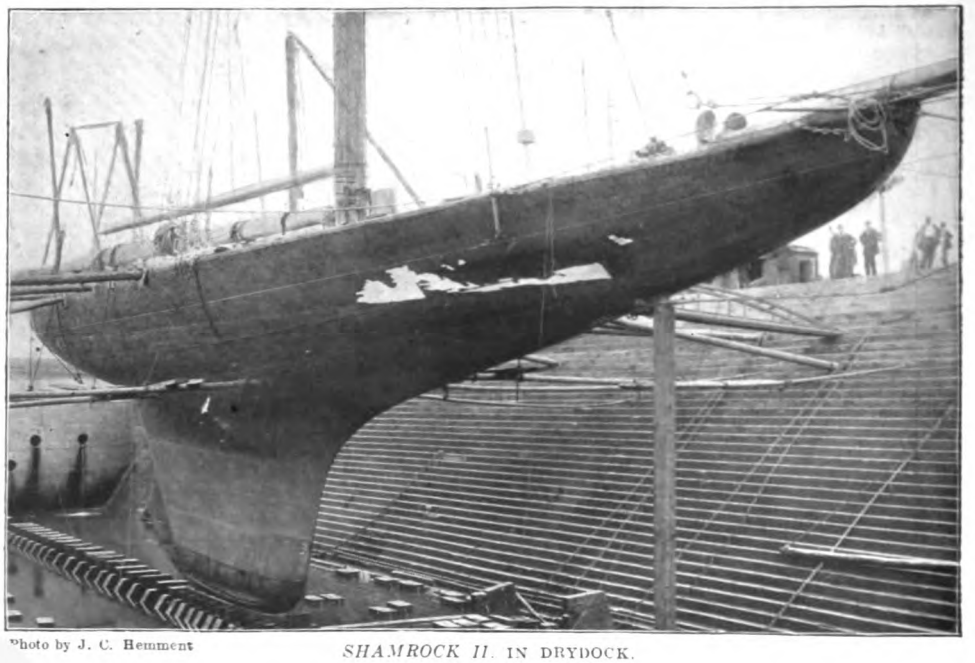

Photo by J. C. Hemment

SHAMROCK II. IN DRYDOCK.

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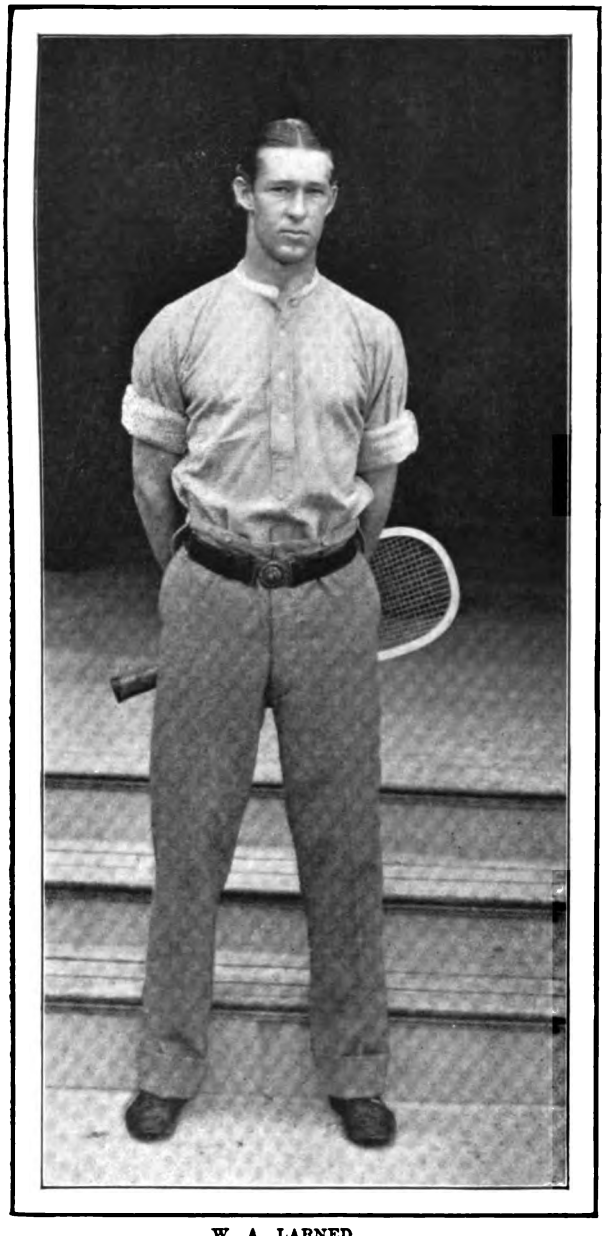

W. A. LARNED,
U. S. Lawn-Tennis Champion, 1901.

It was like giving Ketcham some of his own medicine when T. W. Lawson withdrew Boralma, and that $50,000 Readville race, in which Cresceus, Charley Herr and Boralma were to have met, was declared off. Ketcham believed he had a sure thing for that purse, and he did not relish losing it; he does not believe in sauce for the goose being suitable for the gander.

As for Lawson, his action was quite natural; nothing else could have been expected from him; yet it is most illuminative of this man's attitude toward the game he happens to single out, as a means of getting notoriety. This was the race, it will be remembered, to which Mr. Lawson added $20,000, making the stakes $50,000, and insisting that the gate receipts should be given to certain charitable institutions. Boston papers gushed over this "generous act"; I wonder what they will have to say now that Lawson has shown how little he really cared for the institutions, except in so far as they fitted in to his mania for self-advertising.

The Pacer Crowding Out the Trotter.

Following the record-making performance of Cresceus in trotting, at Brighton, two very remarkable miles were made by pacing horses, which sustains the opinion, held by many, that if the two-minute mark lies within the capability of a non-running horse, it may only be reached by the pacer. Anaconda paced a mile against time on the Brighton Beach track in 2.01¾—the first, second and third quarters being done in 30 seconds each—lowering his previous record from 2.02½. Anaconda is a California-bred gelding, foaled in 1893, and bred by Mr. J. B. Haggin, whose name stands for so much in the horse-breeding world.

We do not hear from California so often as we did formerly, or so much as we should wish, for it is a land of wonderful results in breeding, whether it be grapes or horses.

In Chicago the world's pacing record to wagon with an amateur driver was broken by Mr. F. G. Jones, driving Little Boy, who did the mile in 2.03⅜, the last half in .59⅜ seconds. This is an eight-year-old gelding, and his figures displace those (2.04¼) made by Mr. C. K. G. Billings, driving Free Bond.

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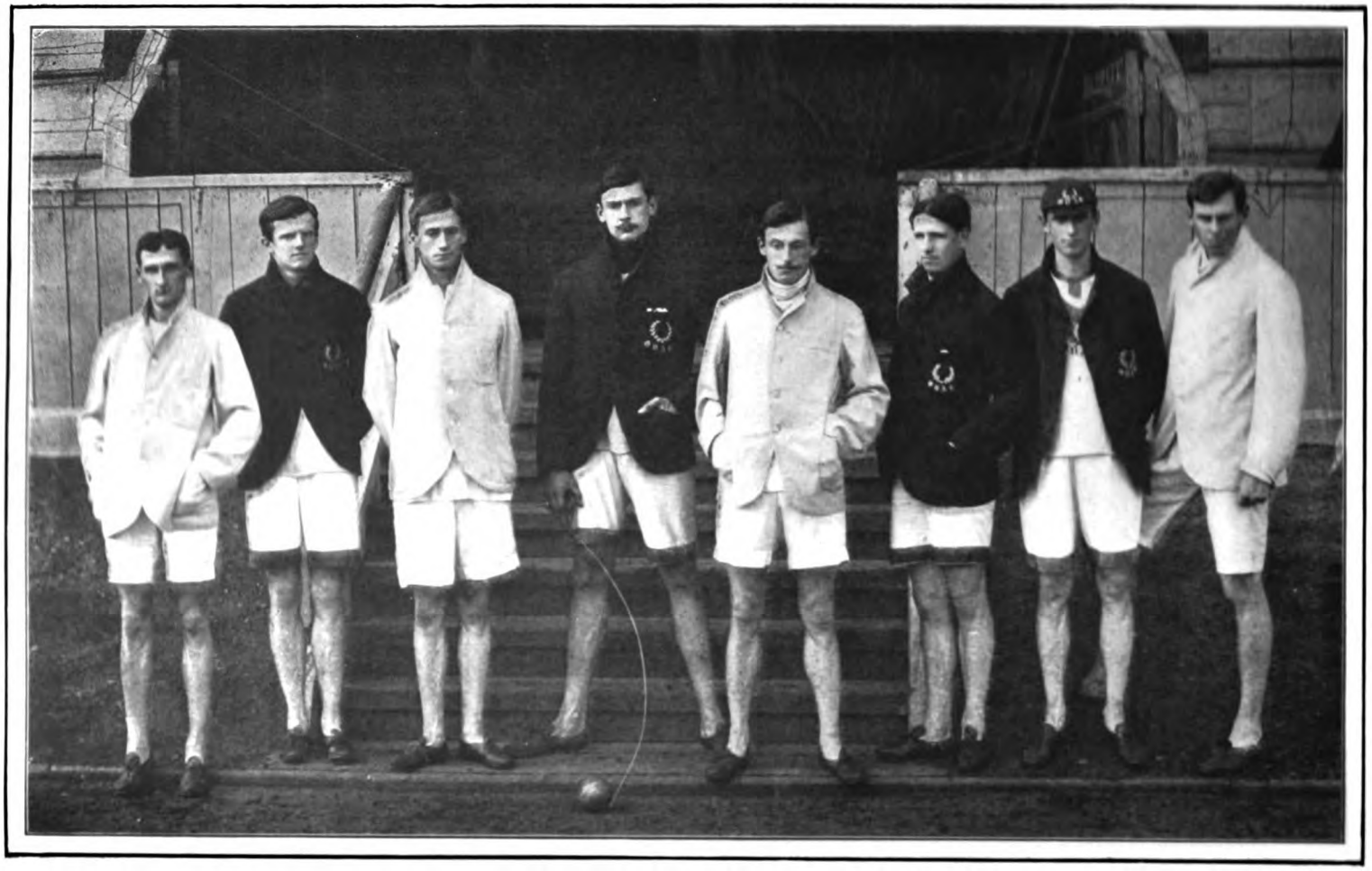
F. G. Cockshott. G. R. Garnier. H. W. Workman. E. E. B. May. A. E. Hind. J. R. Cleave. L. J. Cornish. G. H Smith



FIRST STRING OF THE OXFORD-CAMBRIDGE ATHLETIC TEAM WHICH MET THE HARVARD-YALE TEAM.

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The popularity of the pacer continues to grow at a prodigious rate, as a glance at the racing programme of the average track meeting will prove. At two of the most important meetings this season—Brighton and Providence—the number of pacing events was startling. Not only is the number of events encroaching upon the trotting programme, but the number of entrics is likewise quite jumping beyond those of the trotters; at some of the meetings, notably Providence, the number of pacing starters has been twice that of the trotters. Evidently there is abundant occasion for the claim made by prominent horsemen that the pacer is crowding out the trotter.

Investigation Required. We hope Mr. W. C. Whitney will have the riding of his exquisite filly, Blue Girl, by jockey Shaw, in the Filly Stakes, at Sheepshead, thoroughly investigated. Seldom has more stupid riding, to call it by no severer term, been seen at Sheepshead; and that is saying a great deal. The filly was held in the ruck until her chances were completely ruined, and only one with such a burst of speed could have closed up, as she did, to within a head of winning.

Shaw should be set down for a good long period; for if he is not a knave, he is too incompetent to be trusted upon the back of a thoroughbred. Following so shortly upon the not satisfactorily explained handling of Nasturtium in the Futurity, by jockey Turner, on the same track, it seems to be up to the Coney Island Jockey Club to give the benefit of its fullest investigation to Mr. Whitney, whose patience has been tried beyond need.

Great Two Year-Old Colts. It will remain a doubt in the minds of a great many, until the two colts actually meet, which of the two, Nasturtium or Yankee, is the faster, for the Futurity offered no fair comparison. Yankee is a grand, powerful two-year-old, and a racer that has not yet been beaten. His yearling auction price was $20,000, and his lineage is royal; his sire being Hanover, and his dam the famous Correction, sister to the more famous Domino. His winning time in the Futurity, 1.09⅕, is within ⅕ of the best time ever made by a two-year-old on the Sheepshead course, viz., 1.08⅘, by La Tosca, 122 pounds, in 1890. Yankee carried 119. Mr. Whitney, who owned a part interest in Yankee, at the time of the Futurity, has since, I hear, acquired entire ownership, and it looks to me very much as though one of the colts, perhaps both of them, would be seen in the English Derby next year.

Another two-year-old, concerning which there has been much speculation, is Mr. Clarence E. Mackay's Heno, that, for a longish price, he bought from John E. Madden some weeks ago. Heno did not show up in the Futurity, for several good reasons, not the least of them being that he was in the very first race of his life; but, a few days after, he won the Dash Stakes, impressively, beating the noted filly Leonora Loring, by a length, in faster time than this event was ever won. That is no small achievement for a colt in his second race, and suggests some exceptional work to follow, if a tendency to loaf a bit is worked out, as undoubtedly it will be. The colt is by Henry Young, out of Quiver.

A New and Remarkable Beast from Africa. A new and very remarkable species of that scientific group of ruminants, which includes the giraffe, hippo, pig, camel, deer, sheep, goat and antelope, has been brought to light by Sir Harry H. Johnston. It comes from the little territory of Mboga, an outlying portion of the Uganda Protectorate, and the adjoining territory of the Congo Free State. Locally it is known as the Okapi, but Professor Ray Lankester, to whom a specimen was submitted, has declared it a separate genus and called it *Ocapia*.

The Okapi appears to be a cross between a zebra and a giraffe; it has much of the former's coloration and the latter's head and neck, while in form it borrows from each. It is about the size of a stag, with legs relatively longer than any member of the ruminant family. Like the giraffe, it has only two hoofs, there being no suggestion whatever of the little anterior hoofs, common to the members of the deer family. Some idea may be had from the drawing, printed in this number of OUTING, through the courtesy of *McClure's Magazine*, of the extraordinary coloration of this newly-found animal, but it will be better appreciated after reading Sir Harry Johnston's description.

"The cheeks and jaws are a yellowish white, contrasting abruptly with the dark colored neck; the forehead is a deep red

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chestnut, the large, broad ears are of the same tint, fringed, however, with jet black. The forehead ranges between vinous red and black; and a black line follows the bridge of the nose down to the nostrils. The muzzle is sepia colored, but there is a faint rim or mustache of a reddish-yellow hair around the upper lip. The neck, shoulders, barrel and back range in tone from sepia and jet black, to rich vinous red. The belly is blackish, except just under the knees; the tail is bright chestnut red with a small black tuft. The quarters, hind and fore legs are either snowy white or pale cream color, touched here and there with orange. They are boldly marked, however, with purple black stripes and splotches, which give the zebra-like appearance to the limbs of the Okapi that caused the first imperfect account of it to indicate the discovery of a new striped horse.

"The soft parts of the animal being as yet unknown; it cannot be stated positively that the Okapi possesses a prehensile tongue like the giraffe, but the long and flexible lips would seem to atone for the very weak front teeth. It is probably by the lips and tongue that the creature gathers the leaves on which it feeds, for according to the natives it lives entirely on foliage and small twigs. Like all ruminants (except the camel), it has no front teeth on the upper jaw. The molars are very like those of the giraffe."

Sir Harry Johnston made a hunt in the Congo after the Okapi, but was unsuccessful, and the specimen first to reach the outside world, and from which he made his drawing, after it was mounted, was sent to him in London by a Swedish officer in the service of the Congo Free State, who had secured it from a native soldier. The Okapi, unlike its nearest ally, the giraffe, avoids the open and slinks in the densest parts of the Congo forest; it is not often seen even by the natives.

Shocking Game Conditions in Wyoming.

And now elk, the fast-disappearing wapiti, are being shot down that members of a social body, called the Order of Elks, and affected largely by play actors, may wear their teeth as cuff buttons. As the Order is especially active in the Middle West, the nearby market hunters have made the most of their opportunities to supply the demand. Particularly have the wapiti suffered in Wyoming, where they have been shot down in and out of season in the U. S. Forest Reserves and on the borders of the Yellowstone National Park. One forest ranger in the Teton reserve found fourteen elk last spring, from which only the teeth had been taken! The teeth are on sale in the shops of some towns, Sheridan, Wyo., being one of them, and fetch as high as $20 the pair. There is a law in Wyoming prohibiting the sale of elk teeth! The State game warden of Wyoming is a taxidermist! It is not improbable that there is some connection with that fact and the further one that Wyoming's game laws and seasons are strangely inoperative. Only last winter the State Warden was seen making his way out of the Teton country, and along the same road, not long after, followed a wagon-load of elk heads. Trapping deer also obtains in Wyoming, and, all told, the condition is shocking and urgently in need of the Governor's immediate attention.

General Game Outlook Hopeful.

Speaking for the country generally however, the game outlook is rather encouraging. The number of States having codified game laws is continuously increasing; but the most hopeful sign of a bettered condition is the developing co-operative spirit among the people, who, when not prompted by less selfish motives, are becoming appreciative of the commercial value in the protection of the State's bird and game animals. Thus we have the making of non-export laws, and the levying upon the non-resident of shooting licenses, the money from which source swells the working protection fund. There are now less than a dozen States in the Union which do not restrict the export of game, and not many that fail to exact a shooting license; it would be still better if a gun license was demanded of all alike, residents and non-residents.

For this great improvement in the popular attitude towards game protection, a few organizations are largely answerable. The Boone and Crockett Club, the American Ornithologists' Union, and the League of American Sportsmen have been very energetic in their practical endeavors to punish violations of the laws, in securing needed legislation and in interesting the people in the cause of protection, through expounding its material value for all citizens, whether or not they are sportsmen. An idea of what has been accomplished may be had by

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a study of the complete digest of the game laws of this country and Canada, which have been compiled by the Agricultural Department, and are published in this number of OUTING.

Reports from the North and West indicate that deer and moose and caribou have come through the year in excellent condition and numbers; even despite pot-hunting, which the wretchedly incompetent, not to say negative, Game Commission does not stop, the deer are said to be holding their own in the Adirondacks. Forbidding hounding was the best law ever passed by the New York Legislature, and is answerable for the increase of game in the North Woods.

The birds, too, appear to have done better than ever—for which, no doubt, the Lacey law is largely responsible—quail and grouse are reported in fair quantity and good health; quail are especially plentiful in the South, it is said. As usual the killing of birds by the farmers, before the opening of the season, has nearly spoiled what prairie-chicken shooting remains in Wisconsin, Minnesota, Iowa, and the Dakotas. No type of man in America "cuts off his nose to spite his face" so often as the farmer—and he appears to be a particularly insensible clod out Minnesota and Dakota way.

Death of Albert Nelson Cheney. The sudden death of Mr. Cheney at his home (Glens Falls, N. Y.), loses New Yorkers one of the most efficient and honest public servants we have ever had; and takes from America a pisciculturist who had no superior in his profession, and very few equals. He was born a farmer's boy about fifty-five years ago, with a passion for angling, which gave the direction to his life. He was one of the first in America to undertake the artificial propagation of fish, and after rendering great assistance to the U. S. Fish Commission, which brought him much favorable notice, he was appointed N. Y. State Fish Culturist in 1895. From that day to his death Mr. Cheney's work was marked by such talent and practicability as to have given him renown wherever fish culture is recognized. In all that related to the stocking of waters he was pre-eminent, and his paper in this number of OUTING will be found of great value to those interested in the subject. And Mr. Cheney was a sportsman, too, every inch of him! Peace be to his ashes!

University Football Outlook. He who would forecast the coming football season is "more to be pitied than censured"; yet the data afforded by graduations, withdrawals, etc., and the destinations of football players from the leading academies provide, at least, some basis for estimating the prospects of the more important elevens.

Harvard has lost Daly and Fincke, quarterbacks; Hallowell, end; Lawrence, tackle; Kendall, Sawin and Parker, halves; Ellis, fullback; and several good substitutes, including Gierasch. There remain Captain Campbell, Ristine and Bowditch, ends; Eaton and Graydon, tackles; Sargent, center; Barnard, guard; Kernan and Devens, halves, and Stillman, fullback. While the loss of so many exemplars of what might be called the new Harvard spirit is heavier than in four years, there remains the nucleus of a strong eleven. Mr. Reid will act as head coach, and his ability to get work out of men is second only to that of Mr. Dibblee. The outlook, therefore, may be set down as fairly good. Extraordinary efforts must be made if the eleven at any stage is to equal the record of last year's team against Pennsylvania, but especially must Harvard get a new and more forceful attack than it employed last year against either Pennsylvania or Yale.

Yale's fine team of last season shares the fate of many which have gone before. Several years of hard work were represented in the upbuilding of Captain Brown's eleven, only to see it scattered after a brief but glorious period of triumph. Of the fourteen men who played against Princeton and Harvard, seven (Brown, Coy, Fincke, Stillman, Wear, Cook and Dupee) have been graduated and will not return; one (Olcott) has been graduated, but may return; two (Sharpe and Hale) have left college and Bloomer is ineligible. This leaves only Captain Gould, end; Sheldon, guard; Chadwick, half; Rafferty, substitute end, and Holt, substitute center. Goss, who would have made the team last year had he been eligible, will be on hand, and there is first-class other line material besides. On paper, there is no denying that Yale's chances are not of the brightest, but in actual fact it is to be remembered that Yale last year showed the most advanced game played; and the gray matter which developed it is still doing business.

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Princeton's excellent outlook is based on a very strong coterie of coaches, and the return of a large number of experienced players and several unusually promising accessions in the Freshman class. Only Mattis, fullback, and Little, end, have graduated; while Losey has left college, and Dana, the best player in last year's line, may not be out, by reason of injuries received last year. Of those who remain, Captain Pell, Sheffield and Butkiewicz are candidates for tackle; Wright and Mills for guards, Davis, Roper and Poe for ends; Meier and Vanderhoef for quarterbacks; McClave, McCord, Henry and Hodgman for halfbacks, and Underhill for fullback. Barney and Botchford, who enter from Andover, are promising line candidates, and there are other good men in view. Mr. Lea, who is to direct the development of the eleven, has had considerable recent success as a coach, and the poor record of the 1900 team will be greatly bettered.

The superficial observer regards Pennsylvania's outlook as darker than since Mr. Woodruff became coach in 1892, but in reality it is brighter, because some of the losses of old men will be distinct gains, and Pennsylvania should be able to shake off the ill-advised plan of largely depending for success upon the herculean efforts of one or two extraordinary players. The University has been fortunate in having had on hand some remarkably strong players, around whom the plays were built; there were Woodruff and Wharton, and then Hare and McCracken, whose work has never been surpassed. From seven to nine of last year's team are not available, and the style of game is pretty apt to be changed. The lost are McCracken, fullback; McCloskey, center; Hare, guard; Wallace and Horner, tackles; Hodge, end; Gardiner, quarter, and Potter, half; Graves, quarter, Zimmerman, tackle, and Teas, guard, are also likely not to be on hand. This is the dark side of the picture. On the other hand, the Freshman eleven of 1900 was more successful than any similar organization at Pennsylvania in recent years; it contained a heavy forward of promise, Mitchell, and several other men who should make 'Varsity material in the near future. There are, too, several likely candidates among the oarsmen, and the entering class will contain a number of men, among them Donaldson of last year's Penn Charter team. If the new coaching system at Pennsylvania results in the development of team work rather than individual brilliancy, the eleven may be a strong one; in that direction lies its chance of success.

Columbia will lose Morley, one of the best halfbacks in the country; Wright, guard; Coffin, tackle, and several others of her "All-America" aggregation of 1900. Last year Columbia played, at one time or another, ten men who had been members of other college teams from Maine to California. Of the men who remain, Weekes and Berrien will play back of the line; Sykes, the quarterback, whose college course commenced at Bowdoin ten years ago, will probably yield to persuasion; Van Hoevenberg will play end; Austin, Knapp and Smythe will furnish the tackles, and Niezer, a former Notre Dame player, will fill in as a guard. The candidates, new and old, will be taken into summer training quarters two weeks before the University opens, in order to get a full month of work before meeting Harvard on October 12th.

The general Middle Western football outlook is, perhaps, better than the Eastern—the available material being of evener strength. I am sorry to note the long preliminary training periods which have been taken, notably by Minnesota. In the East, Columbia is the only one to gather its forces away from university grounds—two weeks before term time.

Interpret Football Rules Technically.

The status of the game will not be affected this season by the slight changes made in the rules by the Committee—indeed, these amounted to little else than clearing up some rather obscure points. The question of keeping six men in the line until the ball is snapped, is one which thoroughly informed and unprejudiced friends of the game have advocated; but the Committee took no notice of it. It is hard to bring about a change when the majority of a committee, by very reason of the style of game at their own colleges, cannot approach the subject with unbiased minds.

There is one matter, however, which the Committee should lose no time in acting upon unequivocally; and that is in instructing umpires to invariably interpret the rules as they read. A great many of the troubles in the game to-day originate not so much

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from faults of the rules, or even so much from incompetent officials, as from the generally accepted idea that an umpire should not inflict a penalty unless he thinks the offense affected the play. This is a violation of the spirit of the game, and a dangerous precedent to establish; besides often doing rank injustice to a player, who, finding some petty offenses overlooked, continues until he is penalized at a critical point in the game.

If all officials would interpret rules technically, more attention would be given their observance, and the character of the game tremendously improved. This is not theory, it is a fact as revealed to me in watching both coaching and officiating. Mr. Paul Dashiel, the best umpire we have, has said on occasion that he believed in using discretion as to giving a penalty or not. Mr. Dashiel may be able to do what his imitators would fail miserably in attempting. The position of umpire is a very hard one, but it would be filled much more satisfactorily to all concerned if the umpire were given to understand that he is expected to enforce the rules literally. This would reduce the decisions of judgment, and make the work less difficult. To this end all obsolete rules, such, for instance, as the one forbidding tackling below the knees, should be annulled.

Cleaning Up the Missouri River Section.

There has been great improvement recently in the ethics of college sport, and especially in football in the Missouri River section, for which Clark W. Hetherington, Director of Athletics at the Missouri College, is largely responsible. This section has included some of the most flagrant offenders in all the college sport world, for here was the home of the notorious Kansas City Medics, the Washburn College (Kansas), and the Washington College (St. Louis), three of the most unprincipled offenders I have ever known.

The Medics are, perhaps, hopeless; apparently they are too deeply tainted, and are lacking college officials who are strong enough to purge the athletic body. This year, I hear, none of the college teams in this section will play them; it is the right decision, and I heartily commend it.

The campaign for clean sport has met with great success; practically all the institutions worthy the name have adopted the Chicago Conference rules; Ottawa, Washburn and Emporia Normal College, in Kansas; Washington and the American School of Osteopathy in Missouri—schools which outraged the canons of amateur sport last autumn—these and others less prominent have all adopted the rules. Kansas University has appointed Mr. George Foster their athletic manager, and he, I think, may be relied upon to cut out some of the unwholesomeness which has clung to the sport of this college. The fight has been an exceedingly bitter and hard one, and there is yet much work to do—but I think that with the vigilance which is always necessary to keep athletics pure, the battle is won.

No English Record for Duffy.

It is not likely that Duffy's English performance of running 100 yards on grass in 9⅘ seconds will be accepted as a record by the Amateur Athletic Association of England. There was only one watch on him and the track is a bad one. Indeed, records are rarely given in England unless made at the championship meeting or on the London Athletic Club grounds, at Stamford Bridge. Duffy's best authentic English 100 yards was one yard inside 10 seconds at the L. A. C. games when he won the handicap event from scratch.

O'Connor's jump of 24 feet 11¼ inches has not yet been acted upon, but will probably be passed, as I hear the measurements and the take-off were right.

National Lawn-Tennis Championship Honors.

After twelve years of unsuccessful endeavor, W. A. Larned's attainment of national honors, through the winning of the All-Comers and the default of the 1900 champion, Malcolm Whitman, was as pleasing to his friends as, no doubt, it was to himself. He has been in rare form all this season; his brilliant periods being more frequent and longer sustained than in any year of his career; his defeat of Beals Wright in the All-Comers' final was especially brilliant, and fittingly closed the Newport tournament. Mr. Larned, since his first appearance, has been always able, during his best periods, to beat any other American; but the invariable stumbling-block to his success at Newport has been the brevity of his best periods and the length of his poorer ones. Erratic play has deprived Mr. Larned of many lawn-tennis honors; whether

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it would have come forward this, as it did last, year to lose him the match with Whitman, had the latter defended his title, is hard to say; I am inclined to think it would not have interfered.

An interesting feature of the Newport tournament was the appearance of Mr. Clarence Hobart, who won the All-Comers in 1891, and has continued among our foremost players, though using the same style as he did ten years ago. His entrance in the tournaments of the season—and he has had his fair measure of successes, including a victory over Wright—is much to be commended; it is an example a half dozen of the old experts should follow.

National Golf Championship Form.

Two features of the U. S. G. Association championship at Northfield, N. J., were memorable: (1) the ease with which the really first-class golfers negotiated the course; (2) the rapidity with which defeated players left town. Why Northfield was chosen for the National event, only the U. S. G. A.'s Executive Committee can tell. It is a resort course open to the guests of any one of the houses of the Atlantic City hotel syndicate, and is, therefore, ineligible to U. S. G. A. membership; it does not demand such golf as several other courses that are eligible and more accessible. Owing partly to the less difficult course, and partly to the improvement steadily making in the native game, the scores in the qualifying round were the lowest ever made. Mr. Travis lead with 157 against the 166 which gave him the medal last year at Garden City. The lowest of the qualifying thirty-two this year was 175 against 187 in 1900; and 113 finished of the 124 that started. Some of the surprises included the failure to qualify of Messrs. John Reid, Jun. (176); C. Hitchcock, Jun. (176), and of the western champion, Phelps B. Hoyt (178), and the one-time western title holder, W. Waller (178). Messrs. Jasper Lynch, Daniel Chauncey and H. R. Sweny were a long way down the list. The entries were rather more representative than hitherto, owing to the better date for the tournament and the increasing form; there is no doubt that better average golf marked the play throughout. (See summary on page 122.)

The best three matches of the week were Lockwood *vs.* Holabird, Egan *vs.* Pyne, and Travis *vs.* Douglas. Holabird is a young westerner of much promise, but he met Mr. Lockwood with the latter in one of his playing moods and could not hold him, although showing a very strong game. Mr. Lockwood at times is perfect, again he falls off materially; he seems to tire. Playing unsteadily a day later he was beaten by Mr. Seeley, who, however, revealed a forceful game and one which suggested something better than the faint-hearted display he made against Mr. Egan in the semi-finals. Mr. Egan is also a young westerner who first gave indications of high class golf, about a year ago; although he earned his victory over Mr. Pyne, yet he had too, the better of the luck. Mr. Pyne does his natural golfing talent injustice. Mr. Travis had no trying out until he met Mr. Douglas, and then he won a close and exciting match, decisively. Although these two rightfully belong together on scratch, yet the play of Mr. Travis this year convinces me that he is the better in match play. He deserved to win; he gave Mr. Douglas life several times in the afternoon round, which he did not play so well as the morning eighteen holes; his long game had the distance, if not the direction of Mr. Douglas's, while on the green he was quite the superior. Mr. Douglas excelled in approaching, especially in the short approach, which he makes with consummate skill. Mr. Travis used a rubber filled ball to which, on the grounds, was commonly ascribed his improved long game; Last year Mr. Douglas was almost invariably from twenty to thirty yards the better on the drive. It is quite as likely that Mr. Travis's painstaking and constant practice is as answerable this year for the greater length of his drives, as it was last year, for his better showing in this respect over 1899.

Free-board Golfers Outlawed.

Sportsmen are very thankful to the U. S. G. Association for the recent amendment of its rules which disqualify an amateur who receives free transportation and free board, or whose club dues are remitted by the club or not paid by himself. There need henceforth be no confusion among the U. S. G. A. officials as to their duty concerning an evil which seriously menaces the wholesomeness of the game; we trust the activity in rule making implies corresponding activity by the U. S. G. A. in uncovering rather than shielding culprits.

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YANKEE—WINNER OF THE FUTURITY. OWNED BY HON. W. C. WHITNEY.

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THE GAME FIELD

SLOWLY but surely what were the mere gunners of this country are developing into sportsmen, and one of the strongest proofs of their advancement is to be found in the rational game law and its rigid enforcement. Thanks to the efforts of a few honest publications and a few far-seeing men in behalf of protective measures which will protect, the outlook for sport is now more encouraging than for many a year.

Under the heading "A Matter of Sentiment," *Forest and Stream* editorially speaks of "The lively sentiment displayed on the one hand by mankind for the things which are rare, or which have passed away, and, on the other hand, the apathy displayed for the things which exist in common abundance," etc. Good! and to save ourselves from the fate of Bret Harte's hero, *Milton Perkins, of White Pine*, who suffered from an "excess of sentiment that left the noble Perkins in a week without a cent"—let us take care that our game does not become a mere sentimental memory. A bit of sound common sense in the matter of taking care of what we have is miles better than sentiment concerning what is lost. "Them's my sentiments" anyway, and the old dog looks up, thumps the floor with his tail and seems to ask, "Is it 'bout game? Them's my sentiments, too!"

FROM Illinois come reports of an abundance of quail, the like of which has not been observed these many years. From Minnesota, the statements of well-informed men prove an abundance of grouse and quail. Last winter was easy on game, and from all I can learn from reliable sources, there is better "chicken" and quail shooting in Minnesota this season than has been enjoyed in many years. The new Minnesota law hit hard at those who wanted to ship their game, as it forbade shipment. The rather drastic ruling will, by a later arrangement, not interfere with genuine sportsmen, who will be allowed to send their game to their homes. This is a rational modification, which does not allow shipping for sale. North Dakota, too, has a great crop of feathers this season.

Many parts of Wisconsin are well stocked with "chickens," which term includes sharp-tail and pinnated grouse, while the reports from the Canadian plains, especially from Alberta, tell of a grand supply of all grouse, and waterfowl innumerable.

For all shooting, when the weather is reasonable, the best outer garb is medium-weight duck of the "dead-grass" tint. This is light, strong and inconspicuous wherever placed, especially on sand or among marshy growths. The best gun is a light twelve-gauge cylinder, and the best ammunition for the uplands is any of the leading smokeless powders and an ounce of number eight shot. This, properly directed at reasonable range, will stop any upland game.

THE woodcock, at this season, is frequently a baffling fellow. One may find acres of rich, moist soil, with "borings" and "droppings" galore—evidence that many birds feed there—yet only a straggler may be flushed. Under such conditions, a knowledge of the habits of the birds is invaluable. If you fail to find them on what is unquestionably their feeding-ground, mount a fence or stump and carefully scan the surrounding country. Remember the cock is a night feeder, and he may spend the day dozing in the shade of some thick cover a mile or two from the feeding-grounds. If there be clumps of thicket or fields of tall corn in the vicinity, beat them thoroughly, especially the corn. When working a cornfield, move with the rows and make it a rule to shoot at the glimpse of a feather, or at the spot where the bird disappears. Tall corn looks formidable, but it won't stop even small shot. Many men work a dog very close in corn and keep, as they needs must, whistling or talking to him. I put a small bell on mine and let him go. When the bell stops, "I'm it." Even a high-headed dog will not range very wide in such cover, and I would rather lose a bird now and then than be forever rating a free-moving dog and possibly spoiling him for wide free work in the open. Many good dogs do not care to retrieve cock; these should be made to point dead. One of my best dogs would pucker his lips with a most disgusted expression every time he was ordered to pick up a bird. He would eagerly hunt and staunchly point live ones, but the dead cock, for some reason, appeared to be offensive to him. Otherwise he was a fine retriever. After I had found a beauty lying among his tracks, I concluded that Don had some grudge against cock and was not to be depended upon when out of sight. After that I made him point dead, which he always willingly did. His was not an isolated case, for I have seen a number of fine dogs in the same

In a hilly country, the average sportsman naturally would expect to find cock about the creeks and swales of the lowest valleys. Undoubtedly most of the cock feed in the valleys, but when "sign" is abundant, yet birds are not found, thoroughly beat the cover about the bases and half way up the hillsides. This rule will be found an excellent one in Northern New York and Pennsylvania, where there are more summer cock than most sportsmen imagine. The famous gorge of Niagara, too, will repay a search.

Somehow the papers of late appear to have a deal to say about the woodchuck, and one or two sporting publications have mentioned the beast and the delightful possibilities of hunting it with the small-bore rifle. Why is this? If there be an animal unworthy of a sportsman's consideration, it surely is the poor old chuck. I know he tunnels where the farmer does not want him and that he occasionally is mischievous in other ways, but why should sportsmen trouble his simple life? He affords a mark for the small rifles, I know, but the small rifle would find as easy and as satisfactory a mark in an old hat at the same range. I cannot say that I have a good word for chuck hunters, rifle or no rifle. If pumping lead into a wretched, squatting marmot be sport, then let us breed bantam pocket beagles, quicken the action of our hobby horses and boldly spur o'er hill and dale on the trail of the fierce and crafty short-tailed field mouse.

A CORRESPONDENT asks "How shall I cure my year-old setter of gunshyness?" It depends upon the case, and a deal more upon the doctor in charge. I have seen bad cases cured by the careful administration of about an ounce of lead at a rise of about six feet, but these were very bad cases in more ways than one. I fancy that gunshyness is chiefly owing to one of two causes—excessive nervousness of temperament—possibly owing to in-breeding—or to mistakes on the part of the young trainer when first handling the puppy. Many setter puppies of the more fashionable strains are so nervous that only the wisest and gentlest of handlers can do anything with them. Such a puppy in the hands of an inexperienced amateur of hasty temper would almost certainly be ruined. If my correspondent's puppy is of good hunting stock, has not been abused, and shows ordinary vivacity, he might be experimented with as follows: Chain him up and make him miss one regular meal. Get an old pistol and cap it, making sure it is empty. Prepare a nice mess of food in a pan, stand where the dog can see you and the food, but at a distance from him, get him eager for the fare, then snap the cap and immediately place the food within his reach. If he appears nervous at the sound of the cap, make much of him, but snap no more caps at that meal. Should he not mind the cap, take the food from him after he has had a few mouthfuls, back off a few yards, holding the food in sight, snap another cap and promptly restore the food. He will soon understand that the noise of the cap is harmless and that it means food for him. Once he has grasped this idea, put a pinch of powder and a trifle of wadding in the pistol and begin again at long range. Be careful not to terrify him, and always follow the report with something good to eat. The load in the pistol should be gradually increased until the dog shows no fear of a full charge. Days may pass before he will stand a loud report, but cautious teaching at this stage will sometimes accomplish wonders, and in any event it is better to take plenty of time at home, than to have trouble and perhaps spoil a puppy in the field.

ANOTHER exasperating fault, which not a few high bred and well-broken dogs develop, is sulking in the field. It may happen that your dog will range freely and work enthusiastically for a couple of hours, then suddenly at a sharp word, or for some unknown reason, he quits. I have seen many otherwise fine dogs sulk in this way, and the fault is apt to become worse and worse as the dog ages. I am inclined to think that pointers sulk more frequently than setters, but this idea may be the result of circumstances. Certain it is that the worst sulker I ever saw was a pointer, and the exasperating feature of his case was that when he chose to do his best, he was a rare good dog. Later, I owned a pup by him. The pup was very like his sire, and I remember being chaffed upon my selection. "That pup's too like his father—he'll curl up on you some day," was the opinion of the talent. It proved a bright pup, a naturally fast free ranger, with average intelligence and nose. As he was sensitive, I never laid whip on him, and in time he got to going great guns—in fact, owing to my encouragement, he became almost too fast for his nose, which was never strictly first-class. However, he could cover country and find birds, and I shot two and three days a week

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over him for two seasons. The third season he was, as he should have been, at his best, and everybody knew that I had "quite a dog." One day Bob was going like a cup-yacht to windward, when, to my amazement, he suddenly slowed down, looked at me in a sneaky sort of way—and curled up!

The woodland shadows caught a remark of mine which perhaps had better be left there; then I marched straight to the fence, climbed it, went into the cover, took a bird from my coat, tossed it into the brush and fired one shot. In a moment there was a crash at the fence and Bob came hot foot. "Seek dead, Bob," was my sole greeting, and presently he located the bird.

Never again did Bob curl up. For two more seasons he did grand work, then he was poisoned. Had I punished, or taken too much notice of him upon the occasion in question, I am convinced he would have sulked outright and so have established the habit. If one of my readers finds himself in a like predicament, he might be wise in trying my remedy. Whipping will do no good; it is one of those cases where an ounce of "jolly" is worth a cord of clubs.

With the advent of the big game season come the usual inquiries. Needless to say, the great majority of querists are what the plainsmen term "Tenderfoot"—*i. e.*, green hands at the game. And can't they ask questions.

Before proceeding further, let me frankly state to all novices this important fact—I cannot undertake to tell you how you may "surely get" deer and larger game. I can tell where it may be got, but the getting of it mainly rests with you. There is a deal more necessary than the mere going to a good locality if one intends to succeed at big game hunting. The expert can take care of his own interests, but the novice must depend upon others. Therefore he surely must have a guide—and let me say right here that a good guide is well worth the sum he demands for his services.

Is it moose? Then the easiest reached grounds are in Maine, say with headquarters at one of the small stations on the Bangor and Aroostook, or on Moosehead Lake. There are quite a number of moose, a few caribou, and plenty of deer and grouse in the Maine woods. Immediately to the north lies the great moose and bear region of New Brunswick, where also are fair numbers of caribou. Away further north is a grand big game region—the Tamiscaminque and Abittibi country. This is practically new ground and is reached via C. P. R. from Montreal to Mattawa, thence by a new railroad to the ground. There is plenty of big game there and fairly good accommodation and guides. Still further away is the region north of Winnipeg city—a first-class locality for moose. Then away across the northern plains, north of Edmonton, spreads a vast moose range, which holds good plumb to Alaska.

For caribou, the best ground in the world to-day, undoubtedly, is Newfoundland. After that the Barren Grounds of the Canadian Northwest, and third, the British Columbia ranges. More accessible, and good grounds too, lie to the north of Quebec city. These are reached via the Quebec and Lake St. John Railway. The north shore of Lake Superior is no bad country, nor are New Brunswick and northern Maine.

For elk, one must seek our own extreme west and the foothills of the Rockies. Here also is one of the strongholds of that grim ruffian, the grizzly bear.

Antelope are now uncertain quarry, northern Assiniboia being about the best ground, and next the Badlands.

Some of the most convenient and the surest of deer hunting is to be had in our own Adirondacks. Indeed, I might go so far as to say that the Adirondacks offer the best chance to an inexperienced man. Deer hunting in the Adirondacks has been so systematic that about all the novice has to do is to secure a good guide, obey instructions, and hold straight when his chance comes. Distance may lend enchantment, and one may hear rosy accounts of more remote districts, yet I should advise the average New York man to stick to his own State for his deer hunting. The Upper Peninsula of Michigan, portions of Wisconsin and of Minnesota and Maine, also contain a generous supply of deer. Another, and a very good ground too, lies in the Province of Ontario—the Haliburton country, reached by train from Toronto. There are bear there too, and, of course, grouse. In fact, there is good country in Ontario as far as North Bay.

At the National Shooting Bund tournament, held in San Francisco, the Stevens-Pope rifle carried off nearly all the prizes.

E. V

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Close Season for Game in the United States and Canada, 1901

[Compiled by T. S. Palmer and H. W. Olds.]

The following table shows the close seasons for all game in the United States and Canada, with the exception of mountain sheep, mountain goat, and a few unimportant species. Close seasons include the first date, but not the last, so that open seasons may be found by reversing the dates.

The term rabbit includes 'hare' of the Canadian laws; quail, the bird known as 'partridge' in the South; grouse, includes Canada grouse, sharp-tailed grouse, and ruffed grouse (known as 'partridge' in the North and 'pheasant' in the South), and all members of the family except prairie chickens, ptarmigan, and sage hens. Introduced pheasant is restricted to the Old World pheasants; and goose includes 'brant.'

States are arranged geographically and grouped according to the Hallock Code. The general State laws have been followed in Maryland, North Carolina, and Virginia, but many county laws prevail in these States and in Tennessee.

[Compiled, in part, from Game Laws in Brief and corrected to August 1, 1901.]

		MAMMALS.						BIRDS.			
	STATE.	DEER.	ELK.	MOOSE CARIBOU.	ANTELOPE.	SQUIRREL[3]	RABBIT.	QUAIL.	GROUSE.	PRAIRIE CHICKEN.	WILD TURKEY.
NORTHERN.	Maine	Dec. 15–Oct. 1[1]		Dec. 1–Oct. 15[16]				Dec 1–Oct 1	Dec. 1–Sept. 15		
	New Hampshire	At all times	At all times	At all times		Jan. 1–Sept 15	Apr 1–Oct 1	Dec. 15–Sept. 15	Dec. 15–Sept 15		
	Vermont	Nov. 1–Oct. 22		At all times			May 1–Sept 1	Jan. 1–Sept. 1	Jan. 1–Sept. 1		
	Massachusetts	To Nov. 1, 1902[2]				Mar 1–Oct. 1[7]	Mar. 1–Oct. 1[7]	Dec. 1–Oct. 1[7]	Dec. 1–Oct. 1[7]		
	Rhode Island	To Feb. 1, 1905				Jan 1–Oct 15	Jan. 1–Oct 15	Dec. 16–Oct. 15	Dec. 16–Oct. 15		
	Connecticut	To June 1, 1911				Dec. 1–Oct. 1	Jan. 1–Oct. 1	Dec. 1–Oct 1	Dec. 1–Oct 1		
	New York[1]	Nov 16, Sept. 1	At all times	At all times	At all times	Dec. 16–Sept. 1	Dec. 16–Sept. 1	Dec. 16–Nov 1	Dec. 16–Sept. 16		
	Long Island	Exc'pt 4 days Nov.				Jan. 1–Nov. 1	Jan. 1–Nov. 1	Jan. 1–Nov. 1	Jan. 1–Nov 1		
	New Jersey	At all times				Jan. 1–Nov. 1	Jan. 1–Nov. 1	Jan. 1–Nov 1	Jan. 1–Nov. 1		
	Pennsylvania	Dec. 1–Nov. 1	Dec. 1–Nov. 1			Dec. 16–Oct. 15	Dec. 16–Nov. 1	Dec. 16–Oct 15	Dec 16–Oct. 15	Dec. 16–Oct. 15	Dec 16–Oct 15
	Delaware						Jan. 1–Nov. 15	Jan. 1–Nov. 15	Jan 1–Nov. 15		
	Maryland[1]	Jan. 1–Aug. 1				Dec. 1–Sept. 1	Dec. 2–Nov. 1	Dec. 2–Nov 1	Dec. 2–Nov 1		Dec. 24–Nov 1
	Dist Columbia	Jan. 1–Sept. 1[6]				Feb. 1–Nov. 1	Feb. 1–Nov. 1	Mar. 15–Nov 1	Dec. 26–Nov 1	Mar 15–Sept. 1	Dec 26–Nov 1
	Virginia[1]	Jan. 1–Aug. 16					Local laws	Jan. 1–Oct. 15	Feb 1–Sept. 15		Feb. 1–Sept 15
	West Virginia	Dec. 15–Oct. 15						Dec. 20–Nov. 1	Dec. 15–Oct 15	Dec. 15–Oct. 15	Jan. 1–Sept. 15
	Kentucky	Mar. 1–Sept. 1				Feb 1–June 15		Jan 1–Nov. 15	Jan. 1–Nov. 15		Feb. 1–Sept 1
	Ohio	Dec. 16–Nov. 10[6]				Dec. 2–Nov. 10	Dec. 2–Nov 10	Dec. 2–Nov 10	Dec. 2–Nov 10	Dec 2–Nov 10	
	Michigan	Dec. 1–Nov. 8	To 1911	To 1911		Dec. 1–Oct. 15		Dec. 1–Oct 20[9]	Dec. 1–Oct 20[9]	To 1910	To 1910
	Indiana	At all times				Jan. 1–June 1[11]		Jan 1–Nov 10	Jan. 1–Nov 10	Jan. 1 Nov 10	At all times
	Illinois	To May 10, 1906				Dec. 1–July 1		Dec. 20–Nov 1[8]	Oct. 1–Aug 31	Oct 1–Aug 31	Jan 15–Sept 1
	Wisconsin	Exc'pt Nov. 11-30[5]				May 1–July 1	May 1–July 1	To Sept. 1903	Dec. 1–Sept 1	Dec. 1–Sept 1	
	Minnesota	Exc'pt Nov. 10–30	At all times	Except Nov. 15–20				Dec 1–Oct 1	Dec. 1–Oct. 1	Nov 1–Sept. 1	
	Iowa	At all times	At all times			Jan. 1–June 1		Jan. 1–Nov 1	Jan. 1–Nov 1	Dec 1–Sept. 1	Jan. 1–Nov 1
	Missouri	Jan. 1–Oct. 1						Jan 1–Nov. 1	Jan. 1–Nov 1	Jan. 1–Nov 1	Jan 1–Nov 1
	Kansas							Jan. 1–Dec. 1	Oct. 1–Aug 15	Oct. 1–Aug. 15	
	Nebraska	Nov. 16–Aug. 15	At all times		Nov 16–Aug. 15			To Nov 1, 1903	Dec. 1–Oct 1	Dec. 1–Oct. 1	At all times
	South Dakota	Jan. 1–Nov. 1	Jan. 1–Nov. 1		To Jan 1, 1911			Jan. 1–Sept. 1	Jan. 1–Sept. 1	Jan. 1–Sept 1	
	North Dakota	Dec. 1–Nov. 10	At all times	At all times	To Jan 1, 1911			To Sept. 1, 1905	Oct. 15–Sept 1	Oct. 15–Sept. 1	
	Montana	Jan. 1–Sept. 1	Nov. 1–Sept. 1	At all times	At all times			At all times	Dec. 1–Sept 1	Dec. 1–Sept. 1	
	Wyoming	Dec. 1–Sept. 1	Dec. 1–Sept. 1	To Sept. 1, 1902[10]	Dec. 1–Sept. 1				Dec. 1–Aug 15	Dec. 1–Aug 15	
	Colorado	Nov. 6–Aug. 15	Nov. 6–Oct. 25		Nov 6–Aug. 15			At all times	Nov. 1–Aug 15	Nov. 1–Aug. 15	Nov. 1–Aug 15
SOUTHERN.	North Carolina[1]	Jan. 1–Oct. 1						Mar. 15–Nov. 1			Mar 15–Nov 1
	South Carolina	Feb. 1–Sept. 1[1]						Apr 1–Nov 1	Apr 1–Nov. 1		Apr 1–Nov 1
	Georgia	Jan. 1–Sept. 1						Mar. 15–Nov 1	Mar 15–Nov. 1		Mar 15–Nov 1
	Florida	Feb. 1–Oct 1						Mar 1–Nov 1			Mar 1 Nov 1
	Alabama[1]	Jan. 1–Sept. 1				Feb. 2–July 1		Mar 2–Nov 15	Mar 2–Nov. 15	Mar. 2–Nov. 15	Mar 2–Nov 15
	Mississippi	Mar. 1–Sept 15						May 1–Oct. 1			May 1–Oct 1
	Tennessee[1]	Jan. 1–Aug. 1						Mar 1–Nov 1	Feb 1–Sept. 1		Apr 1–Oct. 1
	Arkansas	Mar. 1–Sept. 1						Mar. 1–Oct. 1		Dec. 1–Oct. 31	May 1–Sept. 1
	Louisiana	Feb. 15–Sept. 15						Mar. 1–Oct. 1	Mar. 1–Oct. 1		May 1–Oct 1
	Texas	Jan. 1–Sept. 1			To June, 1906			Mar. 15–Oct. 1[1]		Feb 1–Aug. 1	Apr 1–Sept. 1
	Oklahoma	At all times			At all times			Feb. 1–Oct. 15	At all times	Jan 1–Sept. 1	Jan 1–Sept. 1
	New Mexico	To Mar. 19, 1906	To Mar. 19, 1906		To Mar. 19, 1906			Mar. 1–Oct. 1	Jan 1–Oct 1	Jan. 1–Oct 1	Jan. 1–Oct. 1
	Arizona	Dec. 15–Nov. 15	At all times		To Jan. 1, 1906			Mar. 1–Oct 15	Mar. 1–Oct. 15		Dec. 15–Nov 15
PACIFIC.	California	Oct. 1–Aug. 1	At all times		At all times	Feb 1–Aug. 1[1]		Feb. 1–Oct. 1	Feb 1–Oct. 1		
	Nevada	To Mar. 25, 1903	At all times	At all times[12]	To Mar. 25, 1903			Mar 16–Sept. 1[1]	To Sept. 1, 1903	Mar 16–Sept. 1	
	Utah	Nov. 15–Oct. 15	At all times		At all times			At all times[1]	Dec. 1–Aug 15	Dec. 1–Aug 15	
	Idaho	Jan. 1–Sept. 1	Dec. 1–Sept. 1	To 1904	Jan 1–Sept. 1			Dec. 1–Nov 1	Dec. 1–Aug 15	Dec 1–Aug 15	
	Washington	Dec. 15–Sept. 15	Nov. 1–Sept. 1	Nov 1–Sept. 1	Nov. 1–Sept. 1			To 1903	Dec. 1–Aug 15	Dec. 1–Aug 15[1]	
	Oregon[1]	Nov. 1–July 15[1]	To Sept. 15, 1904	Nov 1–July 15[1,13]	Nov 1–July 15[1]	Jan. 1–Oct. 1		Dec 1–Oct 1	Dec. 1–Oct 1	Dec. 1–Oct. 1	To Oct. 1, 1905
CANADA.	British Columbia	Dec. 15–Sept. 1	Jan. 1–Sept. 1	Jan. 1–Sept. 1			Jan. 1–Sept. 1	At all times	Jan 1–Sept 1	Jan. 1–Sept 1	
	N. W. Territories[14]	Dec. 15–Nov. 1	Dec. 15–Nov. 1	Dec. 15–Nov. 1	Dec 15–Nov. 1				Jan 1–Aug 1	Dec. 15–Sept 15	Dec. 15–Sept 15
	Manitoba	Dec. 1–Sept. 15	Dec. 1–Sept. 15	Dec. 1–Sept. 15	Dec. 1–Sept. 15	Dec. 16–Sept. 15	Dec. 16–Sept. 15	Dec 16–Oct. 15	Nov 15–Sept 15	Nov 15–Sept. 15	
	Ontario	Except Nov 1–15	At all times	To Nov 1, 1903			Feb 1–Nov 1		Dec 16–Sept 15	To Sept. 15, 1905	To Oct. 15, 1905
	Quebec	Jan. 1 Sept. 1		Jan 1–Sept 15[1]					Dec. 1–Sept 15		
	New Brunswick	Jan 1–Sept. 15[1]		Jan. 1–Sept. 15[1]			Feb 1–Oct. 1[1]		To Oct. 1, 1901		
	Nova Scotia	To 1904	To 1904	Jan. 1–Sept. 15[1]			Mar 1–Sept. 15		Jan 15–Sept. 15		
	Newfoundland		To Jan. 1, 1906	To Jan. 1, 1906							

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BIRDS.

	State.	Dove.	Introduced Pheasant.	Plover.	Snipe.	Woodcock.	Rail.	Duck.	Goose Swan.
Northern.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec 1-Sept. 15		Dec 1-Sept. 15[1]	
	New Hampshire	At all times		Feb. 1-Aug. 1[2]	Dec. 15-Sept. 15[1]	Dec 15-Sept. 15	Feb 1-Aug. 1	Feb 1-Aug 1[3]	
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[2]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1[3]	Jan. 1-Sept. 1[4]
	Massachusetts	At all times	T. 1906	May 1-July 15	May 1-July 15	Dec. 1-Oct. 1[5]	May 1-July 15	Mar. 1-Sept. 1[3]	
	Rhode Island	At all times	To Oct. 1, 1906			Dec. 16-Oct. 15		Apr. 1-Aug 15[3]	
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	Apr. 1-Sept. 1	Dec. 1-Oct 1	Apr. 1-Sept. 1[6]	Apr. 1-Sept. 1[3]	Apr. 1-Sept. 1[4]
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec 16-Sept. 16	May 1-Sept. 1	Apr 30-Sept. 1	Apr. 30-Sept 1[4]
	Long Island	At all times	Jan. 1-Nov. 1	Jan. 1-July 1	Jan. 1-July 1	Jan 1-Aug 1	Jan. 1-July 1	May 1-Oct. 1	May 1-Oct 1
	New Jersey	Oct. 1-Aug 1	Jan 1-Nov. 1[7]	Oct. 1-Aug. 1[8]	Jan. 1-Aug. 25[9]	Jan. 1-Oct. 1[5]	Jan. 1-Aug 25	May 1-Sept. 1	May 1-Sept. 1
	Pennsylvania		To May 27, 1902	Jan. 1-July 15[8]		Dec 16-Oct. 15[9]	Dec. 1-Sept 1	May 1-Sept. 1	May 1-Sept. 1
	Delaware	At all times					Feb. 1-Sept 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1
	Maryland[1]	Dec. 25-Aug. 15	Dec 25-Nov 1	May 1-Aug. 15	May 1-Aug. 16	Dec 25-Nov 1[5]	Nov. 1-Sept 1	Apr 10-Nov. 1	Apr 10-Nov. 1
	Dist. Columbia	At all times		Apr 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb 1-Sept 1	Apr. 1-Sept. 1	Apr. 1-Sept. 1[10]
	Virginia[1]		At all times			Apr. 1-Nov. 1		May 1-Sept. 1[3]	May 1-Sept. 1
	West Virginia	At all times			July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct 1[10]
	Kentucky	Feb. 1-Aug 1				Feb 1-June 20		Apr. 1-Aug 15	Apr. 1-Aug. 15[10]
	Ohio	Dec 15-July 5[8]	Dec. 16-Nov 10	Dec. 2-Nov. 10	Dec. 2-Nov 10	Dec 2-Nov. 10	Dec. 2-Nov 10	Dec. 2-Nov. 10[3]	
	Michigan	At all times	To 1910	Dec 1-Oct. 20	Dec 1-Oct. 1[10]	Dec. 1-Oct 20[10]		Dec. 1-Oct. 1[3]	Dec 1-Oct. 1[4]
	Indiana	Jan 1-Aug 15[11]		At all times		Jan. 1-July 1		Apr. 15-Sept 1[10]	Apr. 15-Sept 1[10]
	Illinois	Dec 1-Aug 1	To May 10, 1906	Apr. 25-Sept. 1	Apr 25-Sept. 1			Apr. 15-Sept. 1	Apr. 15-Sept. 1
	Wisconsin	At all times	To Sept. 1, 1905	Feb 1-Sept 1	Dec 1-Sept. 1	Dec 1-Sept 1		Jan 1-Sept 1[3]	May 1-Sept 1[10]
	Minnesota	Nov 1-Sept. 1	To Sept. 1, 1908	Oct. 31-July 4[8]	Nov. 1-Sept. 1	Oct 31-July 4		Jan. 1-Sept 1	Jan. 1-Sept 1
	Iowa	At all times				Jan 1-July 10		Apr. 15-Sept. 1	Apr. 15-Sept 1[10]
	Missouri	Jan. 1-Aug. 1	Jan 1-Nov 1	Jan. 1-Aug 1		Jan 1-Aug 1		Apr 1-Oct. 1	
	Kansas	Sept. 15-July 15		Sept. 15-July 15					
	Nebraska	Oct. 31-Apr 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept 1			Apr. 16-Sept. 1	Apr 16-Sept. 1
	South Dakota			May 15-Sept. 1		Jan. 1-Sept 1		May 1-Sept 1[3]	May 1-Sept 1[10]
	North Dakota		To Sept. 1, 1908			Oct 15-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[10]
	Montana	Dec 15-Aug. 1	At all times					May 1-Sept. 1	May 1-Sept. 1
	Wyoming	At all times	To Sept 1, 1908	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1[10]
	Colorado	Oct 1-July 15	At all times		Apr. 10-Sept. 1[8]			Apr 10-Sept. 1[3]	Apr 10-Sept. 1[3]
South.	North Carolina[1]	Mar 15-Nov 1						Local laws	Local laws
	South Carolina	Mar 1-Aug 1	To Dec. 22, 1901			Apr 1-Nov 1			
	Georgia	Mar 15-Aug 15	To Nov 30, 1905						
	Florida							Apr. 1-Oct. 1	
	Alabama	Mar 1-Aug. 1	To Feb 8, 1901			Mar 2-Nov 15			
	Mississippi	Mar 1-Sept. 15							
	Tennessee[1]	Feb 1-Nov 1	To Mar 13, 1902	May 1-Sept. 1	Mar. 1-Sept. 15	Mar 1-Sept. 15		May 1-Sept. 1	
	Arkansas	At all times							
	Louisiana	Mar 1-Oct. 1						Apr 1-Sept. 1[3]	
	Texas		To May 27, 1902						
	Oklahoma	Jan. 1 Aug. 1	To Jan. 1, 1904	Jan 1-Aug 1					
	New Mexico		To Mar 14, 1908						
	Arizona		Mar. 1-Oct. 15		Mar. 1-Oct. 15		Mar. 1-Oct. 15	Mar 1-Oct. 15	Mar. 1-Oct. 15[10]
Pacific.	California	Feb 1-Aug 1	At all times	Feb. 1-Oct 1			Feb. 1-Oct. 1	Feb. 1-Oct. 1	
	Nevada	Nov 2-Jul. 15	To Sept. 1, 1906	Mar. 16-Sept 1	Mar. 16-Sept. 1	Mar 16-Sept. 1		Mar 16-Sept. 1	Mar. 16-Sept. 1
	Utah	Dec 1 July 1	At all times		Jan. 15-Oct. 1			Jan 15-Oct 1	Jan 15 Oct 1
	Idaho		To 1907					Mar 1-Aug 15	Mar. 1-Aug 15
	Washington		To Aug 15, 1905[1]	Mar 1-Aug 15			Mar 1-Aug 15	Mar 1-Aug 15	Mar 1-Aug 15
	Oregon		To Oct. 1, 1905[12]	Jan. 1-Aug 1[8]			Jan 1-Aug 1	Mar. 1-Sept. 1[3]	Mar. 1-Sept. 1[3]
Canada.	British Columbia		At all times	Mar. 1-Sept 1				Mar 1-Sept. 1	
	N. W. Territories[13]				May 8-Aug 23			May 8-Aug 23	
	Manitoba	At all times		Jan. 1-Aug 1[8]	Jan. 1-Aug. 1	Jan 1-Aug 1		Jan. 1-Sept 1	
	Ontario		To Sept. 15, 1906	Dec. 16-Sept 15	Dec. 16-Sept. 15	Dec. 16 Sept. 15	Dec. 16-Sept. 15	Dec 16-Sept. 1	May 1-Sept 15
	Quebec			Feb 1-Sept 1	Feb. 1-Sept. 1	Feb 1-Sept 1		Mar. 1-Sept. 15[14]	
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec 2-Sept 1	Dec 2-Sept. 1[10]
	Nova Scotia		At all times		Mar. 1-Sept. 1	Mar 1-Sept. 1		Mar. 1 Sept. 1[3]	
	Newfoundland			Jan. 12-Sept. 16	Jan 12-Sept. 16			Jan 12-Nov 16	

Protected in a few States only	
Pheasant.	
Colorado	At all times
Washington	Dec. 1-Aug. 15
Quebec	Feb. 1-Nov. 1
Nova Scotia	At all times
Newfoundland	Jan. 12-Sept 16
Sage Hen.	
Nebraska	Dec. 1-Oct 1
Montana	Dec. 15-Aug 1
Wyoming	Oct. 15-July 15
Colorado	Nov 1-Aug 15
California	Feb. 1-Oct 1
Nevada	Mar. 2-July 1
Utah	Dec 1-Aug. 15
Idaho	Dec 1-Aug 15
Washington	Dec. 1-Aug. 15
Reedbird.	
New Jersey	Jan. 1-Aug. 25
Pennsylvania	Dec. 1-Sept. 1
Delaware	Feb. 1-Aug 25
Maryland	Nov. 1-Sept. 1[3]
Dist. Columbia	Feb. 1-Sept. 1
Curlew.	
Connecticut	Apr. 1-Sept. 1
New York	May 1 Sept 1[3]
South Dakota	May 15 Sept. 1
Nebraska	At all times
Wyoming	May 1-Sept. 1
Colorado	Apr 16-Sept. 1[3]
California	Feb. 1 Oct. 1
Nevada	Mar 16-Sept. 1
Quebec	Feb 1-Sept 16
Newfoundland	Jan 12 Sept 16
Crane.	
Nebraska	Apr 16-Sept. 1
South Dakota	May 1-Sept. 1
North Dakota	May 1-Sept. 1
Colorado	Apr 16-Sept. 1[3]
Nevada	Mar 16 Sept. 1
Washington	Mar 1 Aug 15

[1] Certain county exceptions. [2] Certain species. [3] Except month of July. [4] Except Mar 10-Apr 11. [5] Except month of April. [6] Sale. [7] Except month of March. [8] Upland plover only. [9] Altitudes above 2,000 feet, Apr 16-Sept. 15. [10] Except unorganized Territories, in which the seasons are as follows: Deer, elk, caribou, mountain sheep, mountain goat, Apr 1-July 15 and Oct 1-Dec. 1, musk ox, Mar 20-Oct. 15; grouse, prairie chicken, Jan. 1-Sept 1; duck, goose, swan, Jan. 15-Sept. 1. [11] Except July 16-Oct. 1. [12] Also Oct 1-Nov. 10, unless permit be obtained. [13] Except certain species, Mar. 2 Apr 11. [14] Caribou protected in Maine to Oct. 15, 1905. [15] Moose only. [16] Goose only. [17] Swan: North Dakota, to Sept. 1, 1905; Wisconsin and Wyoming, at all times. [18] Caribou only. [19] Under the old law which still stands.

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Twenty-first Annual Championship of the U. S. National Lawn Tennis Ass'n—Newport Casino, Aug. 13-21, 1901

Preliminary Round.	First Round.	Second Round.	Third Round.	Fourth Round.	Final.	Winner of All Comers.
	L. E. Ware	Ware, 6-0, 6-1, 6-1	Ware, 6-1, 6-4, 6-2			
	D. B. Eldridge					
	Harry Oelrichs	Seabury, 6-4, 6-2, 6-1				
	Joseph Seabury					
R. C. Sever	Mahoney, by default	Avery, 6-0, 6-2, 6-1		Ware, 6-2, 6-2, 6-1		
F. C. Mahoney			Leonard, 6-3, 6-8, 6-3, 6-2			
Le Baron Adams	Avery, 6-0, 6-2, 6-4					
H. E. Avery						
E. W. Leonard	Leonard, by default	Leonard, 6-4, 3-6, 6-3, 6-1				
Ewing Stille						
R. G. Vaughan	Vaughan, 4-6, 6-2, 6-1, 3-6, 6-1					
Crawford Allison						
I. C. Wright	Wright, 7-5, 2-6, 6-2, 2-6, 6-3	Stevens, 8-6, 6-4, 6-0			Larned, 6-2, 6-3, 6-2	
J. R. Pell						
Robert LeRoy	Stevens, 6-4, 6-2, 6-3		W. A. Larned, 6-1, 7-5, 8-6			
Richard Stevens						
F. B. Alexander	Alexander, 6-1, 6-1, 6-2	W. A. Larned, 6-2, 6-3, 6-2				
C. Pell						
W. A. Larned	Larned, 6-0, 6-2, 6-2			W. A. Larned, by default		
T. A. McGinley						
George Griswold, 2d	Eldridge, 6-1, 6-2, 4-6, 6-0	Foulke, 6-1, 6-3, 6-0				
D. G. Eldridge						
W. L. Foulke	Foulke, 6-2, 6-2, 6-4		E. P. Larned, 6-0, 6-1, 6-1			
J. J. Astor						
H. H. Hackett	McEnroe, by default	E. P. Larned, by default				
E. K. McEnroe						
E. P. Larned	Larned, 6-1, 6-2, 6-0					Larned, 6-2, 6-8, 6-4, 6-4
Norman G. Johnson						
E. C. Potter, Jr.	Appleton, 2d, 6-0, 6-1, 6-0	Little, 6-1, 6-2, 6-1				
D. F. Appleton, 2d						
L. Wilmerding	Little, 6-3, 8-6, 8-6		Little, 6-1, 6-3, 6-4			
R. D. Little						
I. T. Burden, Jr.	Mundy, by default	Kurtz, 6-0, 6-2, 6-0				
N. H. Mundy						
W. B. Kurtz	Kurtz, 6-1, 6-2, 6-0			Little, 6-3, 10-8, 1-6, 6-1		
Robertson Honey						
C. S. Lee	Clothier, 6-0, 6-1, 6-1	Clothier, 6-2, 6-0, 6-1				
W. J. Clothier						
E. P. Fischer	Stillman, by default		Clothier, 6-1, 0-6, 6-3, 4-6, 6-4			
Alfred Stillman						
J. P. Paret	Paret, 6-3, 6-3, 6-2	Paret, 5-7, 6-3, 9-7, 6-1				
C. E. Sands						
K. Collins	Read, by default				Wright, 7-5, 2-6, 6-1, 6-2	
J. B. Read						
D. F. Davis	Davis, 6-2, 6-1, 6-2	Davis, 1-6, 6-2, 6-3, 6-4				
S. C. Whipple						
Holcombe Ward	Ward, by default		Wright, 6-2, 8-6, 6-3			M. D. Whitman, Champion 1900.
G. S. Keyes						
C. L. Childs	Wright, 6-2, 6-3, 6-1	Wright, 6-1, 6-0, 6-2				
B. C. Wright						
Pennington Pierson	Pierson, by default			Wright, 6-3, 8-6, 6-4		
H. A. Plummer						
	C. L. Grimestead	DeForest, by default	Hobart, 6-0, 6-3, 6-0			
	Louis DeForest					
	Clarence Hobart	Hobart, 6-2, 6-0, 6-3				
	A. F. Fuller					

Larned, by default
Champion 1901.

Championship Doubles.

L. E. Ware and B. C. Wright
Winners of Eastern Doubles
F. B. Alexander and R. D Little
Winners of Western Doubles

Ware and Wright, 6-1, 2-6, 6-0, 4-6, 6-1
Davis and Ward, Champions 1900

Davis and Ward, 6-3, 9-7, 6-1
Champions 1901

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Summary Amateur Championship U. S. Golf Association

Northfield, N. J., Sept. 9-13, 1901.

Qualifying Score.	Sept. 9	Sept. 10.	Sept. 11	Sept. 12.	Sept. 13.	Sept. 14
171	Percy R. Pyne, 2d, Princeton	Pyne, 5 up, 3 to play	Pyne, 3 up, 2 to play			
170	Oliver Perrin, Pt. Judith, R. I.					
166	A. M. Reid, St. Andrews, N. Y.	Reid, 3 up, 2 to play				
174	C. M. Hamilton, Baltusrol, N.J.					
165	Walter Egan, Chicago	Egan, 12 up, 10 to play	Egan, 4 up, 3 to play	Egan, 1 up		
170	John Ward, Fox Hills, S. I.					
171	W. C. Fownes, Jr., Pittsburg	Fownes, 2 up, 1 to play				
161	L. P. Myers, Fox Hills, S. I.					
168	Charles H. Seeley, Weeburn, Conn.	Seeley, 4 up, 3 to play	Seeley, 9 up, 8 to play		Egan 11 up 10 to play	
170	E. A. Darby, Philadelphia					
172	H. C. Fownes, Pittsburg	Fownes, 2 up		Seeley, 2 p. 1 to play		
168	W. P. Smith, Huntington Valley, Pa					
165	Wm. Holabird, Jr., Glen View, Ill.	Holabird, 12 up, 10 to play	Lockwood 4 up, 3 to play			
170	Allan Kennaday, Montclair, N.J.					
173	A. G. Lockwood, Allston, Mass.	Lockwood, 1 up				
172	L. L. Harban, Washington					*
172	R. E. Griscom, Philadelphia	Griscom, 3 up, 1 to play	Douglas, 10 up, 9 to play			
173	A. D. P. Gallagher, Philadelphia.					
160	Findlay S. Douglas, Nassau, L. I.	Douglas, 1 up		Douglas 4 up, 3 to play		
174	George A. Ormiston, Pittsburg					
168	J. G. Thorp, Oakley, Mass	Thorp, 1 up	Livingston, 3 up, 2 to play			
173	Hugo R. Johnstone, Washington					
175	L. Livingston, Jr., Westbrook, L.I.	Livingston, 5 up, 3 to play			Travis 1 up in 38 holes	
171	F. O. Reinhart, Baltusrol, N. J.					
166	P. H. Jennings, Burlington, Vt.	Jennings, 2 up, 1 to play	Jennings, 7 up, 5 to play			
172	D. P. Fredericks, Oil City, Pa					
175	E. M. Byers, Pittsburg	Byers, 7 up, 6 to play		Travis 3 up, 1 to play		
171	A. H. Smith, Huntington V'l'y, Pa.					
157	Walter J. Travis, Garden City, L.I.	Travis, 5 up, 3 to play	Travis, 7 up, 6 to play			
173	J. E. Porter, Pittsburg					
174	C. B. Macdonald, Chicago	Macdonald, 1 up				
175	M. G. McDonald, Florida					

*Finals postponed on death of the President.

ROQUE CHAMPIONSHIP.

19TH ANNUAL TOURNAMENT OF THE NATIONAL ROQUE ASSOCIATION AT NORWICH, CONN., AUG. 19-24.

THE large number of clubs; the growing enthusiasm; the condition of the courts, and the long-coveted rubber borders, united in making this year's tournament the most exciting yet held.

SUMMARY OF LEADING PLAYERS' GAMES.

	Won	Lost
W. H. Wahly, Washington	11	3
C. C. Cox, Malden	11	3
Geo. C. Strong, New London	11	3
H. W. Congdon, Norwich	10	4
P. W. Peck, Washington	9	5
B. R. Veasey, Wilmington	9	5
C. G. Williams, Washington	9	5

In playing off tie Wahly won 1st; Cox, 2nd.

Important changes were made in the rules, which will be published early in October.

Seventeen clubs were represented at the Tournament, viz.:

1. Brattleboro, Vt.
2. Bridgeport, Ct.
3. Quaker City, Pa.
4. Mansfield, Mass.
5. Westchester, Pa.
6. Northampton, Mass.
7. Columbia, Wash'n, D.C.
8. Wilmington, Del.
9. Onarga, Ill.
10. Martha's Vnyd., Mass.
11. New London, Ct.
12. Hutchinson, Wash'n.
13. 12th St. Club, Wash'n.
14. Country Club, Springfield, Mass.
15. Naugatuck, Ct.
16. Capitol Hill, Wash'n.
17. Norwich, Ct.

The annual championship tournaments have been held since 1884 at Norwich, those of 1882 and 1883 being held at Philadelphia.

WINNERS.

1882. A. G. Shipman.	1892. G. W. Johnson.
1883. G. W. Johnson.	1893. W. Knecht.
1884. Gen. Harland.	1894. Geo. C. Strong.
1885. Charles Jacobus.	1895. Geo. C. Strong.
1886. C. H. Botsford.	1896. Earle C. Butler.
1887. A. Wambold.	1897. Sackett L. Duryea.
1888. N. L. Bishop.	1898. W. H. Wahly.
1889. G. W. Johnson.	1899. C. G. Williams.
1890. George C. Strong.	1900. C. G. Williams.
1891. Charles G. Smith.	1901. W. H. Wahly.

Winners of the Van Wickle badge:

1891. Geo. W. Johnson.	1897. George C. Strong.
1892. Charles Jacobus.	1897. Earl C. Butler.
1893. Charles Jacobus.	1898. George C. Strong.
1894. L. P. Bryant.	1899. Sackett L. Duryea.
1895. Charles Jacobus.	1900. Sackett L. Duryea.
1896. George C. Strong.	1901. C. C. Cox.

C. JACOBUS.

POLO CHAMPIONSHIP.

Brookline, Mass., Sept. 3-12.

THERE were only three entries. Lakewood (C. R. Snowden, 1; J. M. Waterbury, Jun., 2; Foxhall Keene, 3; L. Waterbury, back) beat Myopia (Max Norman, R. G. Shaw, 2nd; R. L. Agassiz, Charles Wheeler) 23 goals to 4. Lakewood beat last year's champions. Dedham (C. C. Rumsey, E. M. Weld, W. H. Goodwin, Joshua Crane, Jun.) 13¾ goals to 3. Rockaway (W. A. Hazard, R. LaMontagne, Jun., R. J. Collier, P. F. Collier) won Junior Championship. Lakewood completely outclassed the others; Messrs. [illegible] and L. Waterbury earned individual [illegible] of the tournament.

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LURES FOR OCTOBER FISHING—NOTES.

FOR those who can afford the expense and have the leisure days, the opportunities for angling are frequent and alluring in the month of October. If the fall season chances to be mild and entirely free from severe frosts, the waters are astir with the sunfishes (to which family the black basses belong), which come as greedily to the surface lure as they did in the dog days; the fishes of the pike family are not only in prime condition for the tables but show their best angling conditions; even the chub, flaccid in flesh and somewhat inert in action during the summer, becomes firm of muscle and gyrative when hooked; the minnows, which serve as the principal food of the fishes above named, seem to become more frantic and successful in their efforts to escape the jaws of their pursuers, which in October forage perforce for food more actively, owing to its greater scarcity, than in the hotter months, when the larvæ and adults swarm the water.

The best lure in this month is the live minnow, particularly for the sunfishes, perches and all members of the pike family; although on a mild day, when the river mist floats lazily upward along the hillsides, some of these fishes, especially the black bass, will rise viciously to the feathers, but there is no accounting for the idiosyncracies of the bronze backers, a number of which I have taken on a mild day in March, with ice at the pool edges.

Of the live minnows used as baits there are more than a thousand species that are killing; in fact, the young of all species of fish, not excepting those known as game, will serve to lure the adult fins. In the Eastern and Middle States, the cyprinoids, of which there are 225 varietal forms, all of which are closely allied to the carp family, are very generally used, particularly those known under the popular names of chub, dace, darters and shiners. On the Pacific the leucises, also belonging to the cyprinoid class, are extensively used, and the young of the catfish are accepted everywhere as good lures.

FOR those who seek the tarpon, or "Savanilla," as he is called around Galveston, the coast of Texas, from the Mexican line east- [illegible] named city, presents the [illegible] I have seen on an Octo- [illegible] the air at one time at Aransas Pass, Texas, and a day's score of nine to ten fish to one rod is not unusual.

In the States of Maryland and Virginia, particularly in Hampton Roads and around Chincoteague Island, the salt water fisherman in October revels in sport and the inland angler finds with his feathers many responsive fish, while all through the Southern and Southwestern States fishing in October differs very little in scores and species of fish caught from those of the summer season. On the Pacific slope angling is excellent in October.

It were idle to tell the enthusiastic trout angler that the bass is a nobler and harder fighter than the trout, and a correspondent very earnestly questions the fact. That one isolated day, when tempted by the strong words of a bass-loving friend, he cast his fly upon the surface of an hundred acre lake and failed to get a rise, settled the question forever in his mind, and "no micropterus for me" became the fiat of the moment and the text of his future angling life; and I don't wonder at it. He might as well have tried to shoot salmon in trees as to attempt to lure the wary black bass from the cool recesses of a lake, fifty feet in depth, with its bosom as glassy as an unblurred mirror. Perhaps—but even then it would have been an exceptional triumph—had he chanced to find the water ruffled by a rippling breeze, a bass might have been struck, which on light trout tackle would have tingled his blood in the striking and taxed his best skill in handling, and our angler, like many others known to me, would soon have forgotten his old love and burned ardently for the new.

Every living thing—the surface bug, the minnow of the shallows, the bottom creeper and those that lie under shore rocks, fall a prey to both of these fish, yet of the two, the bass is the more delicate feeder. Time and again I have taken a trout whose mouth was widely distended by a large crayfish or a young trout, and it puzzled me to understand how the gormandizer managed to strike my feathers and become hooked with his jaws propped wide open by the half-swallowed prey. No black bass was ever caught on a rod under such conditions. Again, the trout feeds, from choice, upon its own young, the black bass does not. Surely this cannibalistic trait should stamp our mountain beauty in his speckled pride as the "hog of the waters," a title unjustly conferred by some anglers on the black bass.

WM. C. HARRIS.

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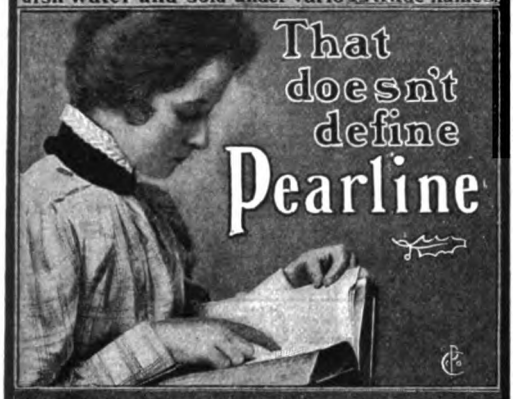

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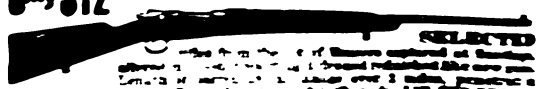

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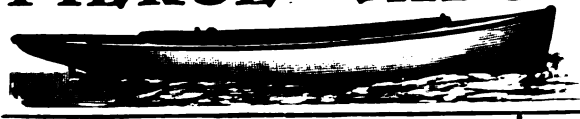

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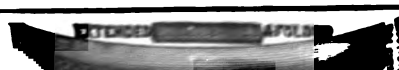

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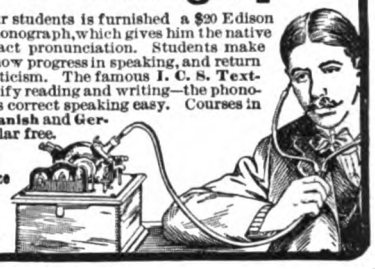

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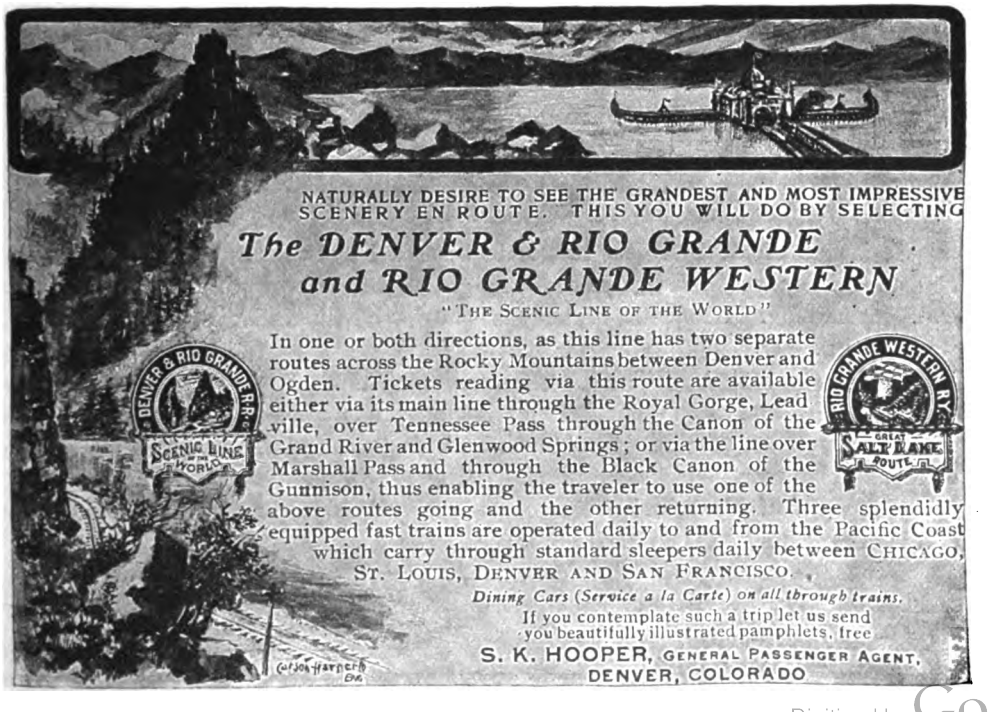

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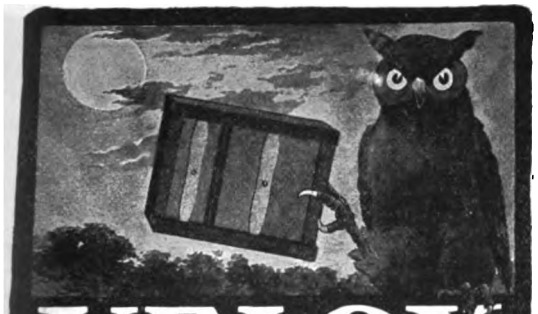

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Fig. 63

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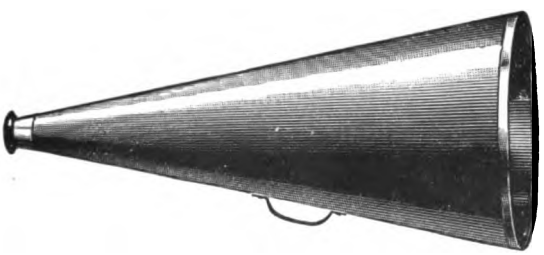

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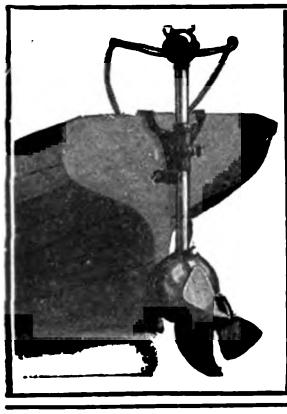

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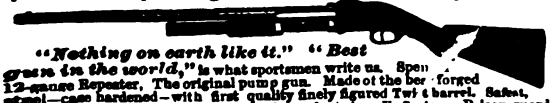

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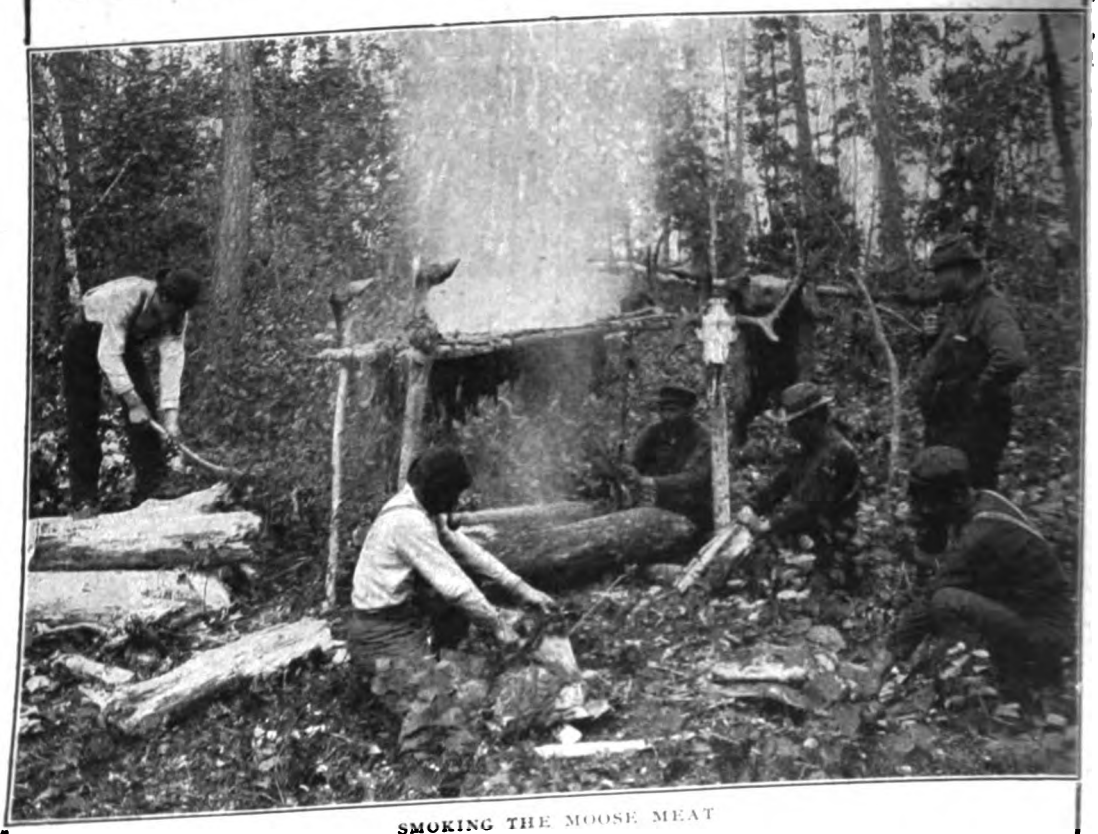

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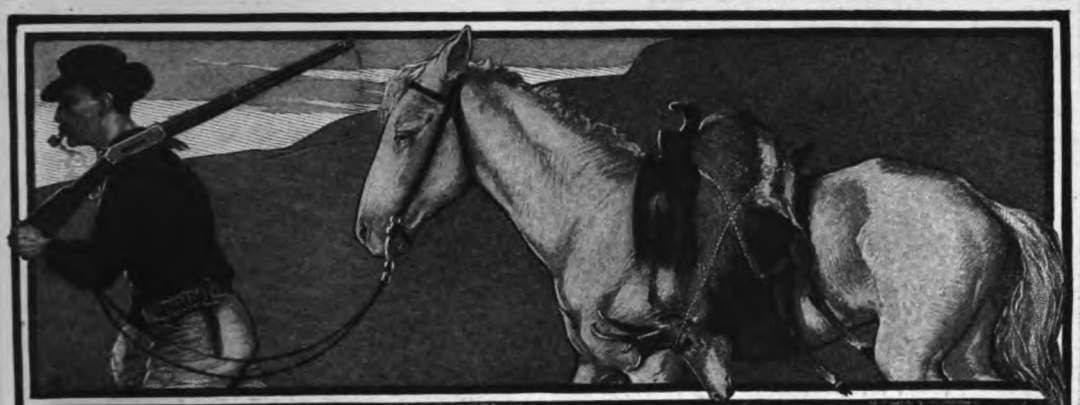

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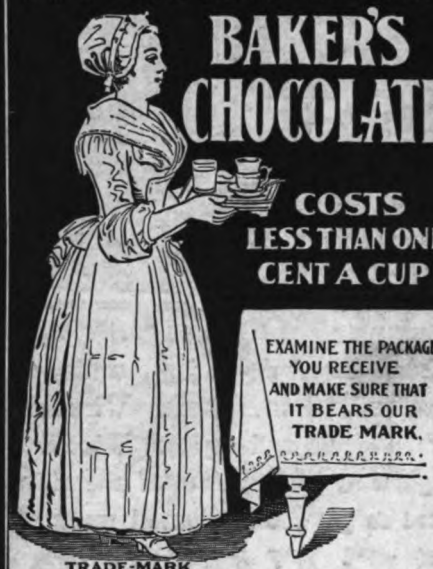

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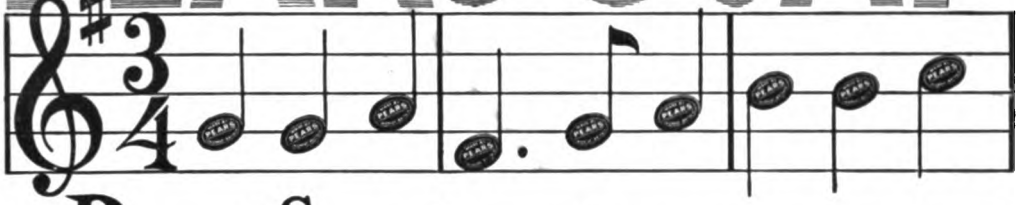
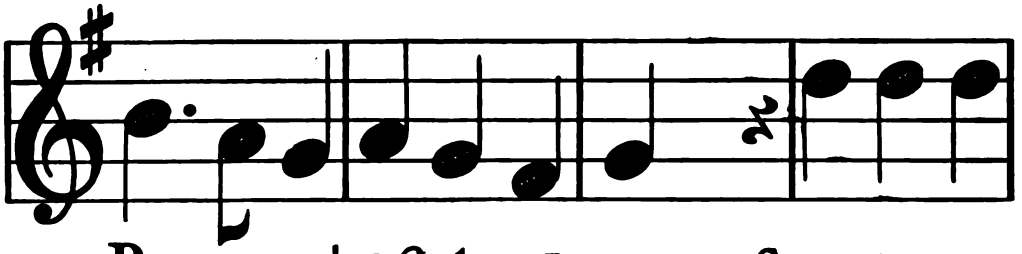
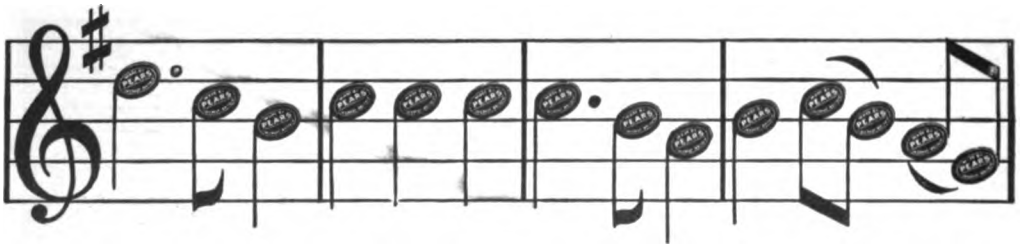


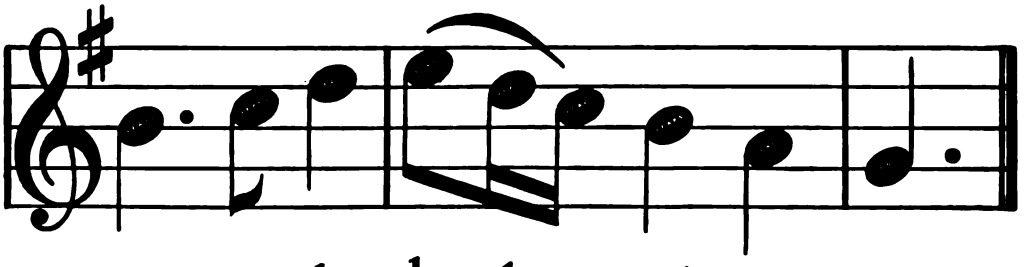
Pears' Soap! 'tis of thee, Sweet queen of



Pu - ri - ty! Of thee I sing; Soap by our



Fathers tried, Soap of two Nations' pride, Of thee on



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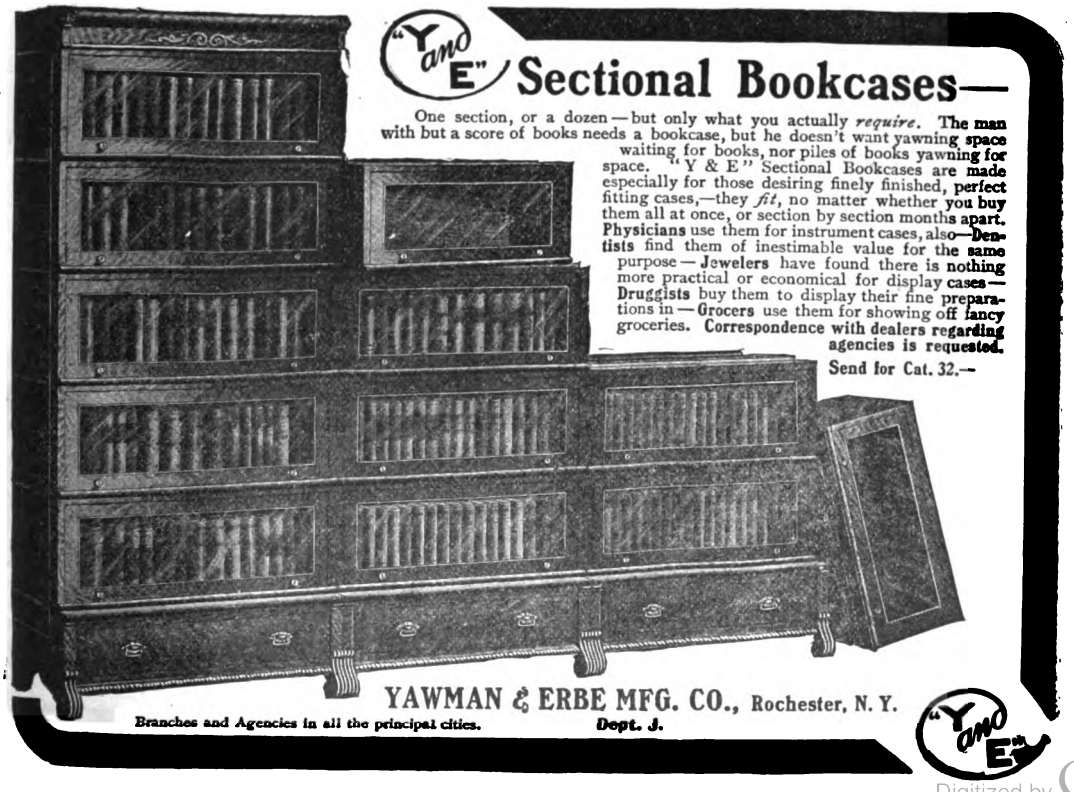

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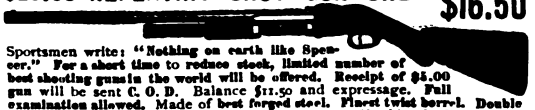

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CHRISTMAS

OUTING'S December Number will be the best number of the year; so many articles of entertainment and value have rarely been before brought together in any magazine. Sport lovers and out-of-door folks should find it extremely interesting reading. Here are some of the subjects:

The Wilderness Hunter . . . . . Owen Wister

A type almost gone. Masterfully interpreted by this talented writer, and speakingly presented in colors by FREDERIC REMINGTON.

Falconry in France . . . . . Vance Thompson

Drawings by Hy. S. Watson.

Newfoundlers of the Outposts . . . Norman Duncan

The quaint, solemn, hard-working fisherfolk of a rugged coast line, with some stunning photographs.

The Dog Poisoner . . . . . J. P. Mowbray

Theories Regarding Scent . . . . John F. Bailey

Can game birds withhold their scent? Here is a discussion which will take hold of sportsmen.

The Adventures of William Mariner . Edward S. Holden, LL.D.

Physical Training for Women

Many women want to know how to attain normal height, and reduce or add to their weight. Here is a practical article, with some remarkable photographs especially taken for Outing.

Correcting Vice in Horses . . . . Frank M. Ware

This is practical, and so serviceable an article that every man owning a horse will wish to read it.

The Quail of the Pacific Coast . . . T. S. Van Dyke

With a page drawing of that exquisite of the quail family, Gambel's partridge, by Louis Agassis Fuertes.

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CHRISTMAS

Some Commonly Misunderstood Birds . . Lynn Tew Sprague
Jacksnipe shooting on the Marshes and on the Gulf Coast. Two articles full of interest for shooters.

Temagaming and Beyond . . . . Charles A. Bramble
A recently discovered game region of Canada.

An Indian Cross . . . . . Edwyn Sandys
This is a very strong, stirring tale of adventure.

The Game Cock—In the Ring and Out of It
A unique and most entertaining paper.

Hartebeest Hunting on Toyo Plains . . Prof. D. G. Elliott

The Sword Fish with Rod and Gun . . Prof. C. F. Holder

A Study of the Black Vulture . . Gene Stratton-Porter
With some remarkable photographs.

A Wolf Chase . . . . . Fred. S. Stimson
This is a page from the day of an old Northwest Plains Hunter, whose life has been unusually full of exciting incidents. Page drawing by E. W. Deming.

Sport and Sportsmanship in Illinois
This article is the result of special trips made by Outing's representative into the Middle West. It is one of a series to follow.

Wild Fowl Shooting . . . . . J. Day Knap
Full of useful and seasonable hints for sportsmen.

A Boy Goes a-Fishing . . . . . Lynn Roby Meekins
A reminiscence that will warm the cockles of every fisherman's heart.

The entire number is very fully and unusually attractively illustrated. An improvement in the mechanical work in the magazine will also be noted. There is no cause for hesitation in saying that it will be extremely good value.

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The football season is here and it is in order to say a word or two about the

INTERCOLLEGIATE J. 5 FOOTBALL

with which all matches are played.

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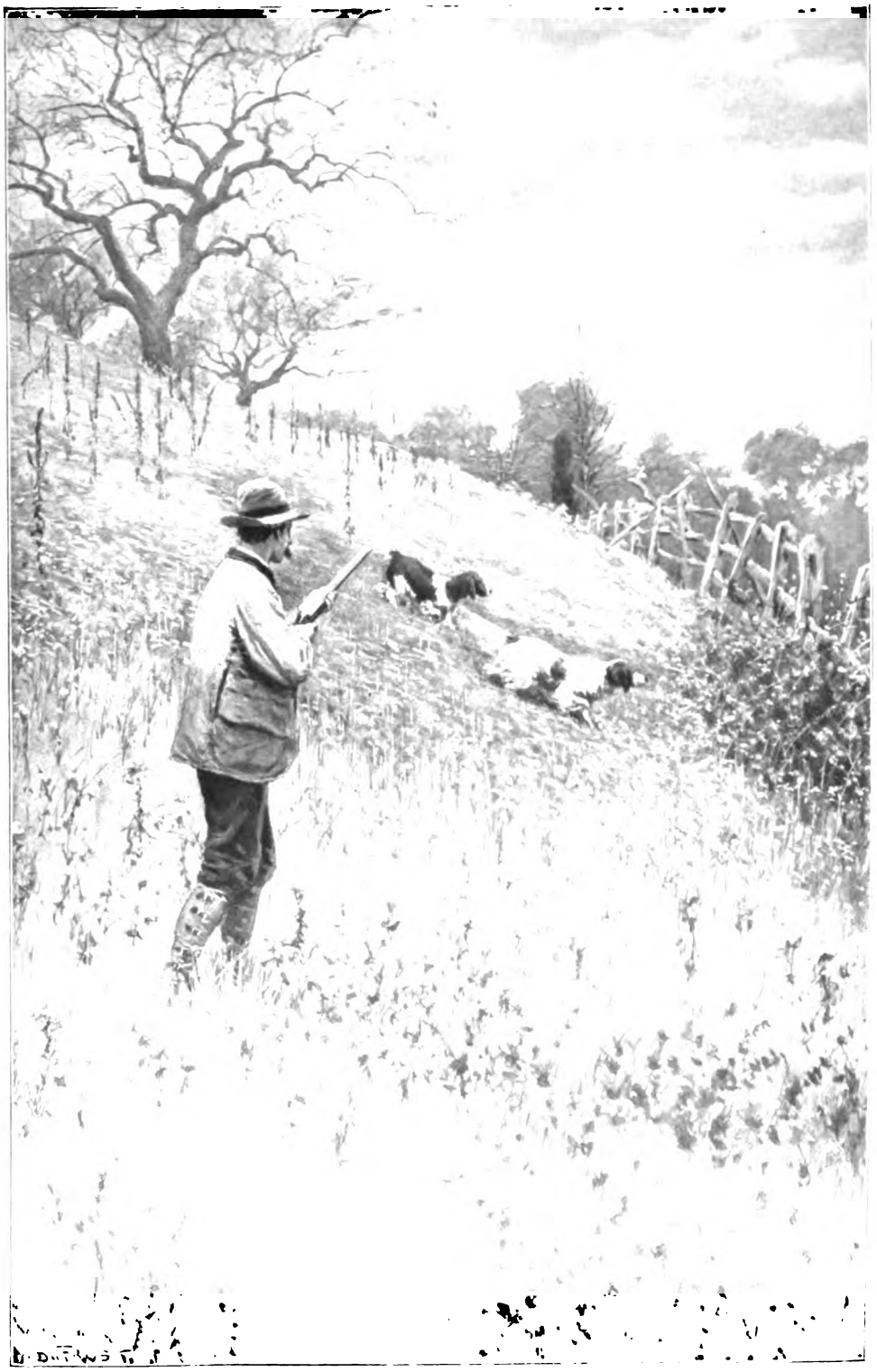

"IT IS A WINDLESS DREAMY MORNING,
ICH WITH THE MAGIC OF INDIAN SUMMER"

(See "One November Day's Shooting," page 142)

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OUTING

VOL. XXXIX. NOVEMBER, 1901. No. 2

THE KING'S HORSES

EDWARD VII. OF ENGLAND AS BREEDER AND OWNER OF THOROUGHBREDS

By Edward Spencer (Nathaniel Gubbins)

(Author of "The Great Game," "Bits of Turf," "Dopes," etc.)

UNTIL the latter half of the nineteenth century was reached, royalty would not appear to have taken much interest in a pastime which, although described at public banquets, in high-class novels and leading articles as "The Sport of Kings," has been ignored for divers reasons by the majority of the monarchs of Great Britain. James I. of England and VI. of Scotland, familiarly known as "King Jamie," was probably the first of his rank to recognize the merits of the "Great game"; but his first-born, the ill-fated "Baby Charles," was too much occupied with plots and civil war to take interest in trials of speed, save for human life-preserving purposes. Racing must have been in a somewhat parlous state, too, during the reign of the "Merry Monarch," as, although he was the first to make Epsom and its downs fashionable, scandal and scouring waters were the chief delights furnished by the little Surrey town, and that indefatigable diarist and gossip, Samuel Pepys, has recorded that man-racing was just as popular during this reign as were equine contests.

James II., of atrocious memory, took no interest in any form of sport, save the torture-chamber and the headsman's axe; William III. evinced not the slightest partiality for the great game, but, strange to relate, in dull, plethoric, prudish Queen Anne, horse-racing found a sincere and constant supporter. She it was who introduced gold cups to be run for, in the North of England, and not only did she present these prizes, but she was also very keen on running her own horses for them. But she seldom won, although Pepper and Mustard, two grays (but why call a gray "Mustard"?) were each "placed" in 1712 and 1713, for the York Cup. Next year, on the very morning that her Star won this valuable trophy, Her Majesty was seized with apoplexy, remaining unconscious for forty-eight hours before her death. So poor Queen Anne did not derive much tangible or intellectual benefit from the pastime of monarchs.

Not one of the first three Georges, heavy, stolid Teutons that they were, cared a button about racing, although George III. kept two packs of hounds. But his son, George IV., atoned for all the shortcomings of his ancestors in this respect, and both before and after his accession to the throne, was passionately devoted to the sport. And, whatever may be said or written against the character of "The First Gentleman in Europe," he was a sportsman to the backbone, a good loser, and staunch to his friends and employees. His brother, the Duke of York, was almost as keen a lover of the turf, whilst the Duke of Clarence, afterwards William IV., also kept race-horses. But he

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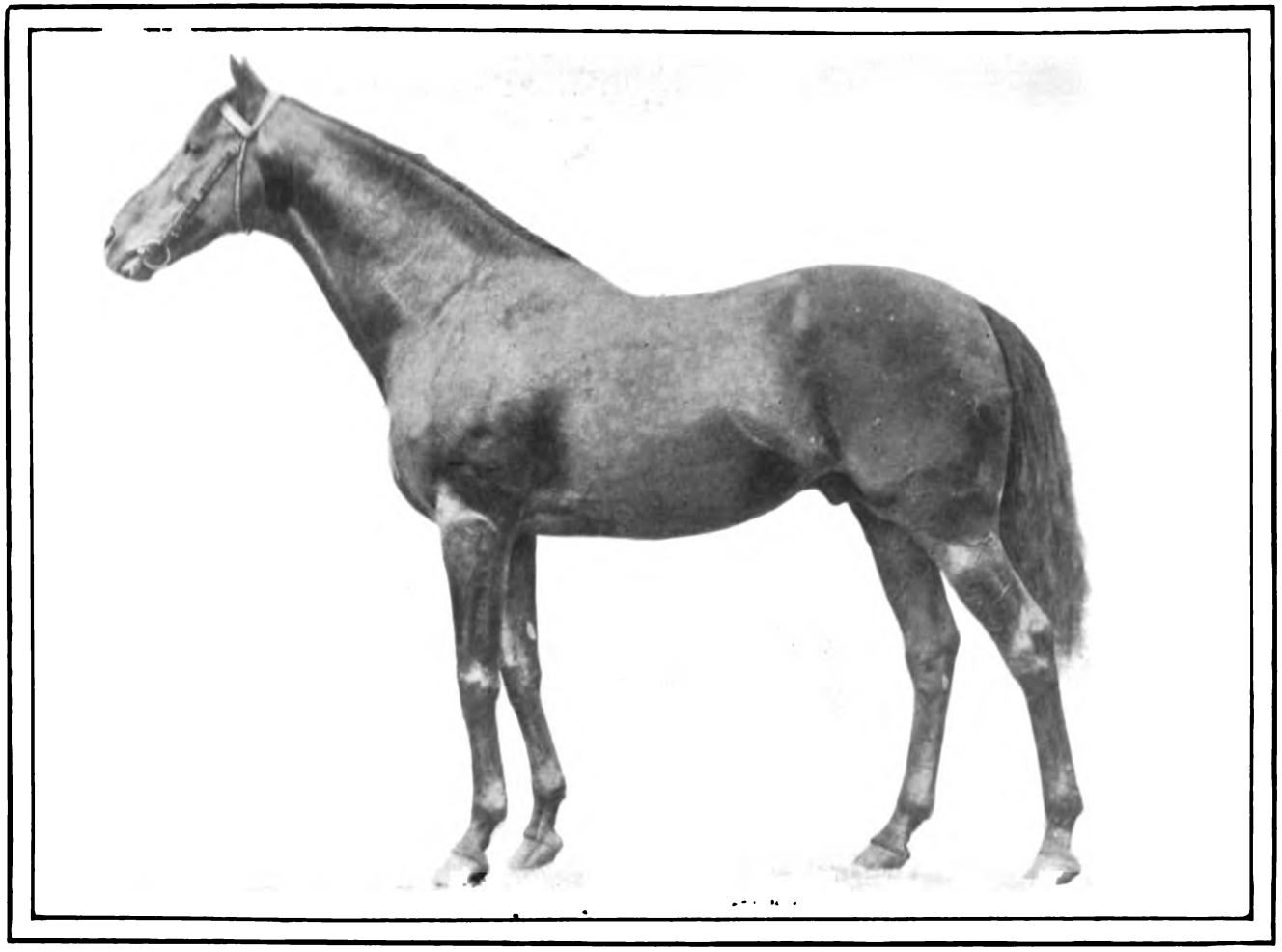

ST SIMON, THE NOTED SIRE THAT LAID THE FOUNDATION OF KING EDWARD'S TURF FORTUNE

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had not much knowledge of the technicalities of the sport. When asked by his trainer which of the Royal Stud should be sent down to run at Ascot, the sailor king replied, "Why, the whole fleet, first-raters and gunboats; some of them, I suppose, must win."

Although there is no royal road to success, whatever be the undertaking, it can be said of the present King, Edward VII., that after his novitiate at the game, fortune deigned to smile upon his efforts, both as breeder and owner of blood-stock. During the years 1896-1900 inclusive, the winnings of his horses reached the very respectable total of £80,723, 10s., or well on the way to half a million dollars. And although this total does not constitute a record for five years, it cannot be said to be altogether discouraging to the votary of the turf. It would take too long to trace the connection of Albert Edward, Prince of Wales, with the sport to the far-off days when he had Alep, a high-caste bay Arab, with flowing mane and tail, in training with the late Mr. Fothergill Rowlands, at Epsom. But the early experiences of His Royal Highness were not fortunate ones and he is said to have once remarked to a friend nearly twenty years ago:

"I have only won one race myself under Jockey Club rules, but far from being discouraged, I still continue racing, and hope one day to own a Derby winner of my own breeding, although I really think, at the present time, my luck is so bad that if a horse of mine were winning a race, it would drop dead before passing the winning post." These last words were strangely and sadly prophetic. Only a year or two later, the Prince's Counterpane, a two-year-old chestnut filly, by Hermit out of Patchwork, fell whilst leading the field in the race for the Stockbridge Cup, just before the winning post was reached, and died almost immediately from heart disease.

The royal race-horses were, in the first instance, trained by John Porter, at Kingsclere, Hants; and if rumor is to be believed, His Royal Highness was almost as ill-

PERSIMMON.

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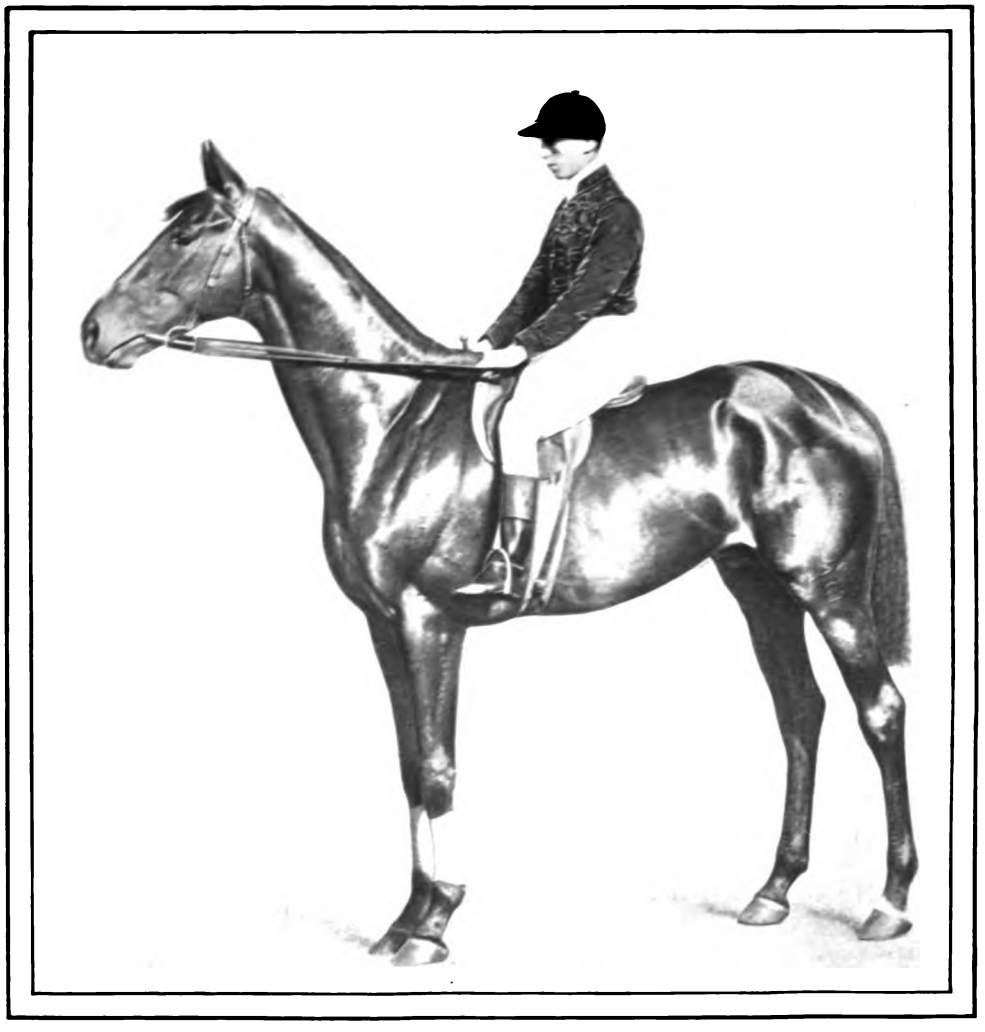

DIAMOND JUBILEE.

informed, during his novitiate, in the technicalities of the turf, as was his illustrious ancestor, William IV. The Prince of Wales had a "backward" filly engaged in the Oaks, amongst other races; and during one of his visits to Kingsclere, he expressed himself much pleased with the condition of the filly.

"Yes, Your Royal Highness," said the trainer, "she has wintered well enough, but I'm afraid I shan't be able to get her ready in time for the Oaks."

"Oh, well, never mind," was the royal rejoinder, "if she can't win it this year, she might do so next!"

That trainer has always been the most imperturbable of mankind, but even his hair began to rise at the thought of winning the Oaks for his illustrious employer with a four-year-old. Although the "ladies' race" at Epsom never came within the grasp of his Royal Highness, he ran second with Thais, a brown filly by St. Serf out of Poetry, to Lord Derby's Canterbury Pilgrim, in 1896. Thais had previously won the One Thousand Guineas Stakes at Newmarket (worth, by the way, £5,100 to the owner of the winner) and started in strong demand for the Epsom race.

The following table, giving the respective amounts won by the Prince of Wales' racehorses from the year 1889 to 1900, may not be without interest:

YEAR.	WINNINGS.
1889	£204
1890	694

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YEAR.	WINNINGS.
1891	4,148 (*a*)
1892	190
1893	372
1894	3,409 (*b*)
1895	8,281 (*c*)
1896	26,819 (*d*)
1897	15,770 (*e*)
1898	6,560 (*f*)
1899	2,189 (*g*)
1900	29,385 10s (*h*)

The union of Perdita II. with the peerless St. Simon was so successful that three visits to him produced for royalty Florizel II. (foaled in 1891), Persimmon (1893), and Diamond Jubilee (1897). And here a word or two about St. Simon, who laid the foundation of King Edward's turf fortunes. Foaled in the same year as Perdita (1881), he was bred by the late Prince Balthyany, from Galopin (the Derby winner of 1875, and one of the best race-horses that ever carried a silk jacket), out of St. Angela. The sudden death of his owner and breeder on the steps of the Jockey Club stand at Newmarket in 1883 rendered his already made engagements void, an exceedingly lucky fact for Sir John Willoughby and Mr. Hammond, for had St. Simon been qualified to run, there would have been no dead heat for the Derby of 1884.

FLORIZEL II.

St. Simon belongs to what was called in

(*a*) £1,194 of this sum, by the aid of The Imp, a four-year-old, son of Robert the Devil and The Martyr.

(*b*) It was in this year that the clouds began to roll by, and the three-year-old Florizel II., the first of the Prince's successes as a breeder, by St. Simon from Perdita II., won some valuable prizes. It would be interesting to know how the odd half-sovereign included in the winnings for 1900 was invested.

(*c*) In this year Persimmon, own brother to Florizel II., made his bow, and won two races, value, £2,551. Florizel II. won five races (including the Manchester Cup, Ascot Gold Vase and Goodwood Cup) worth £4,182.

(*d*) Persimmon, three wins, including Derby and St. Leger, £19,515. Thais, one win, the One Thousand Guineas Stakes, £5,100.

(*e*) Persimmon, two wins, Ascot Cup and Eclipse Stakes, £12,665; Safety Pin, two wins, £337.

(*f*) Eventail, three wins, £5,337.

(*g*) Diamond Jubilee, one win, £1,200; Muscovado, one win, £172; Lucknow, three wins, £816.

(*h*) Diamond Jubilee, five wins, including Two Thousand Guineas Stakes, Derby and St. Leger, £27,985 10s; Lucknow, £872.

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the days of Dr. Shorthouse (a talented man, but a crank on the subject of horse-breeding), "the accursed Blacklock" strain of blood, a strain which has now upwards of a decade been sought more than any other. The son of Galopin and St. Angela was never beaten throughout his racing career and was by many excellent judges (including the late Mr. Joseph Osborne, who coupled the horse with his illustrious ancestor, Harkaway), considered to be the horse of the century. Without wishing to raise any controversy on the subject, it may be mentioned that Matthew Dawson, who trained St. Simon for the Duke of Portland (his purchaser after the death of his breeder), held a similar opinion very strongly.

Before proceeding to criticise the contents of the Sandringham stud, it may be as well to append a fac simile of the stud-card:

ROYAL ARMS

SANDRINGHAM STUD, 1901.

STALLIONS		
AT THE STUD FARM, SANDRINGHAM		
NAME	SIRE	DAM
PERSIMMON, 1893	St. Simon Hampton	Perdita II. Hermione'
AT THE HEATH STUD FARM, NEWMARKET		
NAME	SIRE	DAM
FLORIZEL II., 1891	St. Simon Hampton	Perdita II. Herm.one

All applications to be made to

LORD MARCUS BERESFORD,

32 St. James's Street, London.

It may be as well to state here that the cost of his racing stud, as well as that of his breeding establishments, was paid for out of the private purse of the Prince of Wales, and that now, as king, he will be solely responsible for their maintenance, as long as he may choose to continue the up-keep of these establishments. The idea of royal studs being chargeable to the national revenue would not be entertained for one moment by a modern British government, which, presumably, does its level best to please and mollify all classes and denominations of the king's subjects, many of whom are bitterly opposed to horse-racing, and some to recreation in any shape or form, for reasons alleged to be conscientious as well as economic.

Even the meager sum once charged on the Civil List, as the cost of certain royal plates, run for on English race-courses, has long since been withdrawn, and devoted to "premiums" for stallions adjudged, annually, at the Agricultural Hall, London, to be fit to raise hunters, and other useful stock from half-bred mares throughout the land; although these royal plates have not yet been disestablished in Ireland. Truth to tell, although in the eighteenth century such racing as took place in Great Britain was more or less under the control of Parliament, that august body has taken but little thought since of the improvement in the breed of horses, more especially of the thoroughbred horse.

The expenses of a stud, whether for breeding or racing, are naturally very heavy, but that it is quite possible for these to be self-supporting goes without the saying. That the royal racing account has balanced itself on the right side for its owner during the last five years of the century is an established fact, as the foregoing figures tell, and that the royal breeding establishment at Sandringham will eventually prove a successful speculation is extremely probable.

Persimmon's task in the Derby, when he only just managed to shake off the attentions of Mr. Leopold de Rothschild's St. Frusquin, was a far harder one than that which fell to the lot of Diamond Jubilee, about whom a great many misleading statements have been published. That he has a will of his own is certain; a thoroughbred without one would be comparatively worthless, both on the track and at stud. But that he is the "savage man-eater" he has been represented to be is a traveler's tale and he would have resented the close attentions of the multitude who mobbed him after he had won the Derby, had he merited half the bad character which has been given him. Strangely enough, he took a very strong objection from the first to Mornington Cannon, as a rider; but, according to *The Druid* more than one equine hero of the past had the same unaccountable dislike to certain jockeys, and the writer has been an eye-witness of Henry Custance (a very celebrated wearer of silk during the sixties and seventies), hunted out of a box by a horse who went for the jockey open-

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BROOD MARES

Mares.		Service 1899.	Produce 1900.	Service 1900.	Produce 1901.	Service 1901.
1. Nunshch, 1894	By Nunthorpe out of La Morlouye	Juggler Mar. 29	Cast Foal Aug. 8, 1899	Persimmon May 17	Bay Filly April 18	Not served
2. Leveret, 1891 Dam of Lord Quex	By Galopin out of Sacrifice	Orme Mar. 21	Bay filly Feb. 27	Orme April 30	Bay colt April 1	Persimmon April 17
3. La Carolina, 1889 Dam of La Carolina, filly	By Sterling out of Cherry Duchess	Persimmon April 25	Chestnut filly April 11	Persimmon April 22	Bay colt April 9	Persimmon May 13
4. Laodamia, 1890 Dam of Pole Carew	By Kendal out of Chrysalis	Persimmon April 10	Brown colt March 18	Persimmon March 30	Bay colt Feb. 27	Persimmon March 11
5. Fanchette, 1880 Dam of Eventail	By Speculum out of Reticence	Persimmon April 13	Brown colt March 13	Persimmon April 26	Chestnut filly March 24	Persimmon April 5
6. Azeeza, 1895	By Surefoot out of Perdita II	St. Frusquin May 13	Barren	St. Simon March 20	Bay colt Feb. 24	St. Simon March 23
7. Vane, 1897 Sister to Flying Fox	By Orme out of Vampire	.....	.....	.....	.....	Persimmon April 22
8. Courtlay, 1891	By Hampton out of Little Lady	.....	.....	St. Frusquin April 30	Barren	Persimmon May 21
9. Mintleaf, 1889	By Esterling out of Mint Sauce	Crowberry April 25	Barren	St. Simon March 14	Barren	Persimmon May 17
10. Red Enamel, 1888 Dam of Lipsalve	By Arbitrator out of Lenity	Persimmon April 19	Chestnut colt March 26	Persimmon April 10	Barren	Persimmon May 30
11. Tears of Joy, 1895	By Amphion out of Merry Dance	.....	.....	Cabin Boy May 7	Barren	Florizel II April 29
12. Mousme, 1895	By St. Simon out of Fanchette	Sir Hugo Feb. 21	Brown filly Jan. 17	Wolf's Craig June 6	Barren	Sir Hugo April 2
13. Pierrette, 1888	By Mask out of Poetry	Juggler April 28	Chestnut colt April 5	Persimmon May 28	Barren	Merman March 7
14. Eventail, 1896	By Ayrshire out of Fanchette	.....	.....	Florizel May 30	Bay filly April 30	Florizel II. May 25
15. Meadow Chat, 1892	By Minting out of Stone Clink	Persimmon April 4	Chestnut colt March 18	Persimmon May 29	Bay colt May 1	Orme May 10
16. Merrie Lassie, 1884 Dam of Fosco Died April 11, 1901	By Rotherhill out of Lassie	Persimmon Feb. 24	Chestnut colt Feb. 1	Persimmon March 11	Chestnut filly Feb. 19	

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YEARLINGS

Name.	Color.	Sire.	Dam.	Foaled.
1.	Chestnut filly	Persimmon	La Carolina	April 11
2.	Bay filly	Orme	Leveret	Feb. 27
3.	Brown filly	Sir Hugo	Mousme	Jan. 17
4.	Chestnut colt	Persimmon	Red Enamel	Mar. 26
5.	Chestnut colt	Persimmon	Meadow Chat	Mar. 18
6.	Brown colt	Persimmon	Laodamia	Mar. 18
7.	Chestnut colt	Persimmon	Sweet Muscat	Mar. 26
8.	Chestnut colt	Persimmon	Merrie Lassie	Feb. 1
9.	Brown colt	Persimmon	Fanchette	Mar. 13
10.	Chestnut colt	Juggler	Pierrette	April 5

HORSES IN TRAINING

Name.	Color.	Sire.	Dam.	Age.
1. Lucknow	Chestnut horse	St. Angelo	Luck	6 years
2. Diamond Jubilee	Bay horse	St. Simon	Perdita II.	4 years
3. Frontignam	Brown gelding	St. Simon	Sweet Muscat	4 years
4. Lauzun	Bay colt	St. Simon	Merrie Lassie	3 years
5. Lord Quex	Bay colt	Sir Hugo	Leveret	3 years
6. Frusquina	Bay filly	St. Frusquin	Meadow Chat	3 years
7. Pole Carew	Bay colt	Persimmon	Laodamia	2 years
8. Nadejda	Bay filly	St. Simon	Perdita II.	2 years
9. Ecila	Bay filly	Persimmon	Meadow Chat	2 years
10.	Bay filly	Amphion	Leveret	2 years

mouthed, directly he heard his voice. Little Herbert Jones (son of a former jockey-trainer to the Prince of Wales), has always been a *persona grata* to Diamond Jubilee, who will do more for him than for anybody else connected with Richard Marsh's stable; but that the horse can be as obstinate as a Texas mule we saw at Newmarket last year, when for some twenty minutes he resolutely declined to budge from one spot in the saddling paddock. And those who should know most about the horse are inclined to blame it on his dam.

But whatever may have been the moral obliquities of Perdita II., her purchase certainly proved to be the turning point in the royal luck on the turf. This mare (foaled 1881) who was got by Hampton out of Hermione, a Young Melbourne mare, was certainly not bred for vice in any shape or form, her sire having been as gentle as a sheep, as kind as a "dear gazelle" in disposition.

The Sandringham estate consists of rather more than fourteen thousand acres, and includes most of that district in the county of Norfolk which extends along the east coast of "The Wash," between the towns of Wolferton and Heacham. The estate was purchased at the time of the Prince's marriage (1863), and the residence has been much enlarged since, from time to time, whilst many farm and other buildings have been erected, including the sheds for the blood stock, hackneys, and numerous draught horses. It is probably no exaggerated estimate to value the estate at a quarter of a million sterling, a price which, of course, does not include the live stock, nor the numerous art treasures within the mansion itself. General Sir Dighton Probyn, V. C., formerly commandant of Probyn's Horse, a famous regiment of Scotch cavalry, which did such good service during the Indian Mutiny of 1857–58 (besides before and since), as the controller of the Royal Household, exercises supreme control over the Sandringham estate; but for some time past—nearly twenty years—Lord Marcus Beresford, second son of the fourth Marquess of Waterford, and brother of the late Lord William Beresford, V. C., has acted in a private capacity as Master of the King's thoroughbred horses. His Majesty is himself an excellent judge of a horse—whether race-horse, hackney, hunter, or carthorse—but in purchasing or selling he has invariably followed the advice of Lord Marcus, through whose instrumentality the Sandringham thoroughbred stud farm was started.

The annual cost of that stud alone, when we come to add together the costs of labor,

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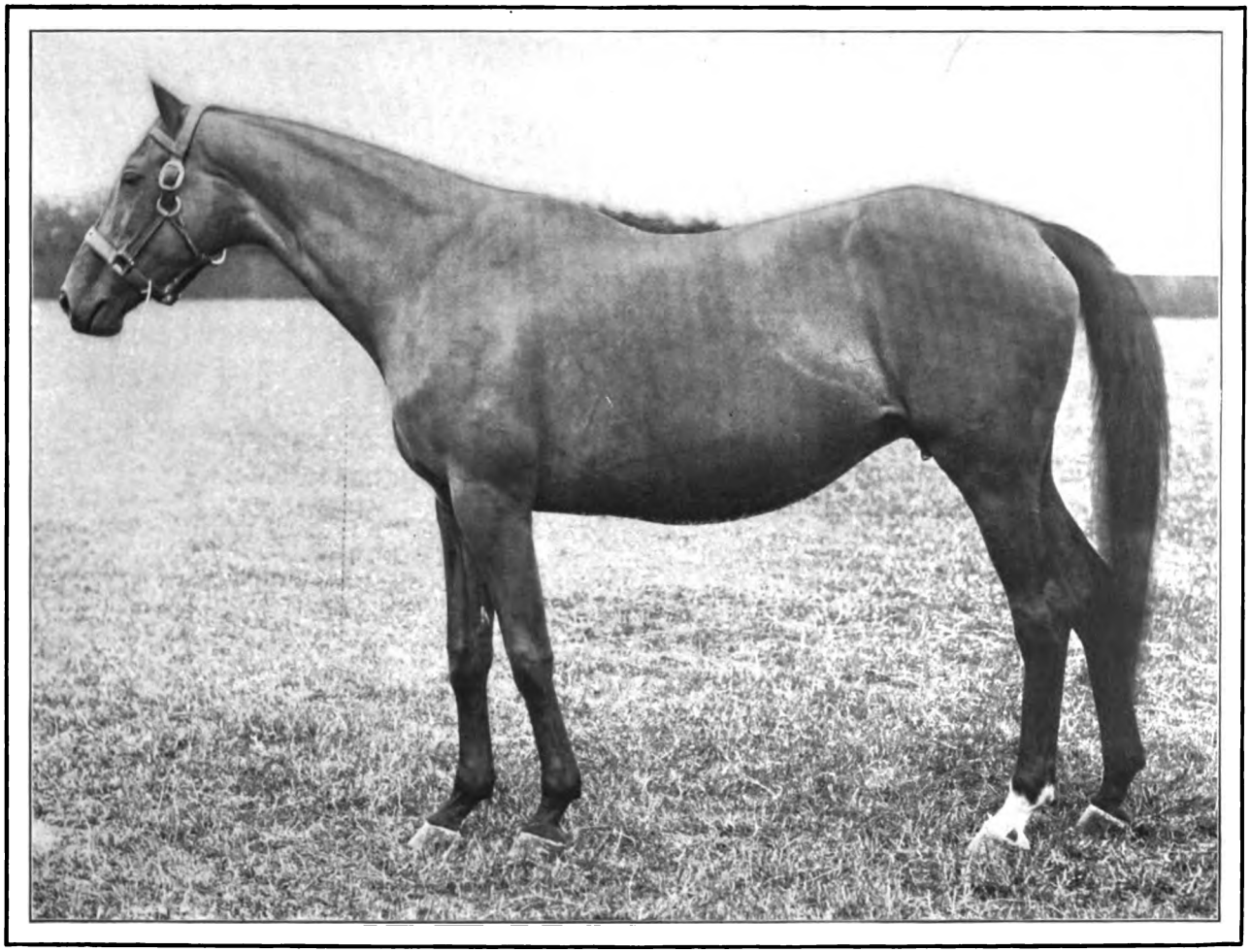

PERDITA II., MATE OF ST SIMON AND THE FAMOUS DAM OF TWO DERBY WINNERS.

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forage, repairs, etc., etc., cannot be much less than £6,000, in addition to the prices which may be paid for mares. *Per contra*, here is a rough estimate—probably under the mark—of the value of the horses themselves:

STALLIONS.	
PERSIMMON	£25,000
His covering fee is 300 guineas, and he is but 8 years old.	
FLORIZEL II	20,000
His covering fee is £100, and will be raised to £200 next season.	
BROOD MARES.	
Say	£2,500
FOALS	
Say	£7,200
YEARLINGS.	
Say	£9,000
HORSES IN TRAINING	
DIAMOND JUBILEE	£20,000
The remainder, say	2,000
Total	£85,700

Which is a sum as before observed, probably under rather than over what the stock would fetch at auction, at the time of writing.

A few words about the King's racing-colors may be added here. The combination of purple jacket, gold-braided, scarlet sleeves, black velvet cap, with gold fringe around the orthodox button atop, was thought out by His Majesty himself before first registering his colors as Prince of Wales. There is not one of his subjects better informed in matters of dress—whether uniform or mufti—heraldry and precedence, than King Edward VII.; and in this respect he differs vastly from his royal ancestors. William IV., and George IV. At the commencement of the nineteenth century not much attention was paid to the cut, or even the color, of a racing jacket, and previous to the year 1762 the dress of the jockey was a ramshackle vestiture indeed. Nor did the "First Gentleman in Europe" set a good example, whilst indulging in his favorite sport, as, according to history, his racing outfit consisted usually of a green jacket, white beaver hat, tight-fitting nankeen pantaloons, striped socks, and low shoes. At a later period he would certainly have been mistaken, in such a garb, for a "Welsher."

In the time of the Saxons, the country where now stands the royal residence and outbuildings of Sandringham was mere waste land, the soil sandy and partially covered with gorse-bushes and stunted pine trees. But the modern traveler who alights from the train at Wolferton, on the Great Eastern railway system, can hardly fail to appreciate the beauties of the country between that depot and Sandringham. All around are heather-clad hills, scattered here and there being pine-woods and clumps of rhododendrons; Sandringham being eventually approached through an avenue of stately trees, known as the Prince's Drive.

The boxes built for the mares on a visit to Persimmon are situate four miles from the Sandringham Stud Farm, only one hundred yards or so from Wolferton Station. By this plan all danger of any infection which might be brought by any equine guest is avoided. The lord of the harem, Persimmon himself, has, besides his comfortable home at Sandringham, a box at Wolferton, where there are five paddocks, of about ten acres each. The Sandringham Stud was formed in 1887, and by the following season eleven mares were assembled. Perdita II. was one of the first inmates of the boxes, as was Lillian, a mare who did a lot of winning, chiefly over long distances, for the late Mr. Henry Saville.

Florizel II., who has been located at the Heath Stud Farm, Newmarket, for the last two years, was a somewhat overgrown, weak two-year-old, and only ran four times during the season of 1893. This patient policy was rewarded with five victories the next year and six when four years old. There was never any doubt about his stamina (with such a pedigree how could there be), and when he left the race-course for the stud, his subscription list was soon filled. And it is, the writer ventures to think, a record that a young ten-year-old stallion should have sired no less than four of the competitors in the recent Derby (this article was completed in the same week), including Volodyovski (the winner) and Floriform (fourth, only beaten a short head from the third). At the same time it is worthy of note, that, of the royal mares, but one was served by Florizel in 1900 and two during the present season. The reason is obvious; as in his more illustrious brother, Persimmon, a most capable representative is located handy.

"I have never seen," said Mr. Simon Harrison, a breeder of celebrity and celebrities, after a visit in May to the Sandringham Stud, "such foals in my life as Persimmon's this season." This was said to the writer shortly before the Derby. And it is probable that although the covering-fee of the last-named is but half what a visit to his sire St. Simon

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costs, he will be equally successful at the stud. For, although St. Simon as a stallion is difficult to find a fault with, odds would be betted on his son, were the two to be judged side by side, for Persimmon is not only better in front, but possesses more length and reach than the other, who was always what is technically called a "short-coupled" one. Sceptre, the first of the Persimmons to carry silk, won her race at Epsom in the easiest possible fashion, although she ran so "green" that jockey Loates had to hit her more than once, to keep her on the track. As a yearling she cost Mr. Sievier 10,000 guineas to buy, and after the Epsom race he priced her to Mr. "Solly" Joel (of "Kaffir Circus" fame) at exactly double that figure. She has the most perfect action imaginable, although her forelegs do not quite match, and she has the quarters of a four-year-old. Yet she is said, by her trainer, to be behind Duke of Westminster, by Orme out of Gauntlet at home. Sceptre, by the way, is by Persimmon out of Ornament, the last-named being an own sister to the peerless Ormonde. Here is blood, indeed.

Of the mares now at Sandringham, the most celebrated is Laodamia, an Irish-bred one, which, with better management, would have certainly won much more money for her then owner. This fine, roomy mare when offered in the market, was promptly and wisely secured for the Sandringham Stud. Her first foal was said, by good judges, to be the handsomest ever seen, and so much impressed was the royal owner with the same idea that he promptly named the produce Pole Carew, after the gallant warrior who has the reputation of being the best-looking man in the British Army. For three years in succession has Laodamia thrown a colt foal to Persimmon, and as may have been gathered from the copy of the stud card, she was served by him again, on March 11 of the present year. And in the opinion of Richard Marsh, the royal trainer, her second foal was, and is, even better looking than the first.

No article on the Sandringham Stud would be complete without bearing testimony to the worth of Edmund Walker, the stud-groom. He was formerly in charge of the small stud of the late jockey, Frederick Archer, and has been at Sandringham since the formation of the stud. The King, who visits his farm each day whilst in residence, has a very high opinion of Walker.

This article has attained to such a length (it has been, indeed, a labor of love) that the writer will not touch further on the subject of the royal horses in training. Besides, the bereavement which plunged the nation into mourning, at the commencement of the new century, has caused those horses to be transferred (temporarily only, it is to be hoped) to the name of another. But it is tolerably safe to prophesy that when the time of mourning shall have been completed, the royal "purple and scarlet" will be seen once more fluttering in the breeze, on the back, or neck, of some scion of Florizel or Persimmon. At all events, we hope so, for Edward VII. may be truly described as a better sportsman than George IV., a still better loser, and a keener votary of the sport than any of his royal predecessors.

And where is the Pharisee who will dare to cast the first stone at him on that account?

There was no stricter religionist, no man possessed of a more rigorous code of morals than the late "Charley" Russell, who died last year, Baron Russell of Killowen and Lord Chief Justice of England. And the writer once heard him make the following deliverance from the bench, upon which he was administering justice, words which cannot be too strongly impressed upon the youth of Great Britain and elsewhere.

"I can see nothing in the man who makes a study of horse-racing which is incompatible with the character of a gentleman and a Christian."

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MY FIRST BULL MOOSE

By Frederic Courtney Selous

DEVOTED to natural history and delighting in the study of the habits of the wild creatures of the earth in their native wilds, it had always been one of my ambitions to visit some district of the great North American Continent, where moose were still to be found, in the hope of meeting with some of these giant deer and, perhaps, securing the head of a well-grown bull to add to my collection of hunting trophies. For many a long year, however, Fate decreed that my life was to be passed in a part of the world far removed from the great northland, and gradually the hope of ever seeing one of these quaint, ungainly, old-time looking beasts grew somewhat faint, though it never entirely left me.

However, "*tout vient a qui sait attendre*," or rather, if I may paraphrase that familiar French saying, "he who really wants a thing will sooner or later get an opportunity to go after it," and in the fall of last year, 1900, the chance came to me to go on a hunt after moose. Having made certain preliminary arrangements by letter, I arrived at Mattawa, in the Province of Ontario, Canada, on the evening of September 24, bringing with me my rifles and ammunition, blankets and clothing. With the kind assistance of Mr. E. O. Taylor, the manager of the Hudson's Bay Company's store, and Mr. Colin G. Rankin, I had got all my provisions, cooking utensils, etc., ready packed, the day after my arrival in Mattawa, and on the morning of September 27 got off by the train to Lake Kippewa with my guide, George Crawford, and his boy Joe. We carried with us, besides our stores, two small tents and two birch-bark canoes. I must confess that, during my two days' stay at Mattawa, I had been somewhat taken aback by the number of hunting parties constantly ar-

GEORGE, THE GUIDE, AND THE TROPHY.

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riving there from all parts of the English-speaking world—the British Isles as well as various parts of Canada and the United States—all intent on securing that much-coveted trophy, a fine moose head. However, I reflected that the country in which all these eager sportsmen, I among them, were about to hunt was very vast, and covered entirely, except for its rivers and lakes, with forests of a density which must be seen to be understood, and concluded that there were probably enough bull moose in these primeval solitudes for all of us, if we could only find them.

THE KIND OF COUNTRY—IDEAL FOR MOOSE.

A three hours' journey by rail brought us to the southwestern shore of Lake Kippewa, where we embarked on a fine steamer—the *Hurdman*—which is employed in carrying stores to the various lumber camps on the Lake shore, and which bore us forthwith across Lake Kippewa, through Hunter's Lake, to an old, abandoned landing stage, distant about a mile and a half from Lake Bois Franc. The passage through the various sheets of water, known collectively as Lake Kippewa, all of which are studded with innumerable islands, amongst which the steamer threads its way often through very narrow channels, would have been a most interesting experience had the weather been only bright and fine, with the sun shining on the forests, with which every island on the lake and every portion of the mainland that was visible is covered; forests in which the dark-foliaged spruce and pine are intermingled with the maple, birch and other deciduous trees, whose leaves were now all glorious with the rich and varied tints which mark the advent of the Indian summer. But the sky was dull and threatening and entirely obscured with rain-charged clouds which hung low over land and water, whilst a cold wind blew from the north, which was far from comfortable.

On the following morning a thick mist hung over forest and lake, but the wind had altogether dropped, and as the sun rose it gradually dispersed the mist, and we had a fine warm day. In three trips we carried all our belongings and our two canoes to the shore of Lake Bois Franc, which signifies hardwood lake, the name having been given to it doubtless by some French Canadian lumberman on account of the numbers of ridges around it, on which there grows a large proportion of decidous or hardwood trees, as distinguished from the soft wood pine and spruce. It was in getting our things across this first portage that I learned the wonderful carrying powers of the Indian half-breeds. In one trip George Crawford carried a bag of flour (100 pounds) on his back and the heaviest of the two canoes weighing probably another 70 or 80 pounds on his head, and he walked with his load the mile and a half without ever stopping to rest. Joe carried about 80 pounds which was quite as much and more than my own loads and I am sure that he carried his packs much more easily than I did mine. The Indian way of carrying packs on the back, the weight being supported by the broad leather strap across the forehead, is a most excellent one, and the easiest method, I think, of carrying a heavy load. After having repacked the canoes, we embarked on Lake Bois Franc, and paddled about three miles to an old

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HEAD OF MOOSE FEW HOURS AFTER SHOT, SHOWING NATURAL (NOT USUAL TAXIDERMIST) SHAPE OF NOSE AND SMALL EYE.

lumber camp where we established our headquarters. In the evening George paddled me down to a gamy looking little creek at the end of the lake, and here after the sun had set, I heard for the first time the call of the cow moose, imitated through a birch bark trumpet, but we got no answer.

The next morning it rained continuously till after midday but as soon as it had cleared up a bit, George and I crossed the lake and threaded our way through the dripping woods to a small lake. Here we saw a good many moose tracks, some of them evidently those of large bulls, so we determined to fetch one of our tents as quickly as possible and then hunt the surrounding country. Accordingly on September 30, we carried a tent, the smaller of our two canoes, together with our blankets and a few days' provisions to this promising looking hunting ground. In the evening George again called for moose until long after dark, but we had no reply, nor heard any sound in the forest, save the cry of an owl. The next day was the first of October, the opening day of the hunting season in the county of Pontiac, Province of Quebec, and as soon as we had finished breakfast George and I followed an old lumberer's trail which after a mile or so brought us to a small swampy lake about 500 yards wide by 600 or 700 long. Here George gave a call —the call of the cow moose—and shortly afterwards we heard a real cow moose bellowing. She repeated this cry several times, apparently in the woods not very far beyond the end of the lake. Thinking there might be a bull with her, we now commenced to skirt the lake within the edge of the forest, and when about half way down George walked out along a large pine tree that had fallen into the water and called again. After waiting a short time and having heard the cow bellow again, we continued to make our way around the lake through the thick forest. We had not gone far when George's sharp ears heard something behind us and we stood still and listened. At first I could hear nothing, as African malarial fever or the large quantity of quinine I have taken to counteract that malady has somewhat dulled my sense of hearing. However, I soon heard a distinct rustling in the bushes and then the sound as of some large animal walking through shallow water. "It's a bull that heard me call," whispered George; "he's coming towards us along the edge of the lake." There was apparently no wind at all, but we were afraid that the moose might scent our tracks; so we commenced to cautiously retrace our steps just within the edge of the forest. We could now hear quite distinctly the noise made by some large animal walking in the water and on getting back to the half submerged log, where George had given the last call, my eyes beheld and flashed upon my brain a picture which I shall never forget. A great bull moose was coming slowly along towards us, walking knee deep in the water, and just skirting the forest. In very truth he was a splendid beast to look upon, huge in bulk and with broad palmated antlers showing up well above his uncouth head, and as I gazed at him longingly, brief visions of many a picture I had seen in works descriptive of sport in the Canadian forests flitted rapidly across my brain. He was not then more than two hundred yards away from me, but as it seemed as if he would come right up to us, I did not think of firing at him at once. However, after he had come a little nearer

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in full view, he suddenly left the water and turned into the forest, after first passing through some bushes growing in the lake and above which only his head and horns had been visible.

We now again advanced cautiously through the forest to intercept him, and heard him give two or three low grunts. Then he came dimly in sight again amongst the trees which here grew very close together. He was not more than fifty yards off when we once more caught sight of him, but the stems of the trees hid him to such an extent that, moving as he was, I think I should probably have hit a tree had I fired hurriedly. So I possessed my soul in patience, and waited for a chance of a clear shot. Although we were motionless both George and I were in full view, but the doomed moose never turned his head toward us nor seemed in the least suspicious of danger, moving steadily forward without any of that appearance of alertness or timidity usually noticeable in all wild animals which live in a country where they are either hunted by man or preyed on by carnivorous animals. The bull had now changed his course, and was advancing in a line that, had he kept it, would have brought him past us almost broadside on, at a distance of perhaps thirty or forty yards. I was however afraid to wait any longer, lest an eddy of wind should betray our proximity, so getting the sights of my rifle on his body just behind the shoulder, I fired. He was just at that moment in a dip of the ground, so that the lower portion of his body was hidden and I had therefore to shoot him a little high, though well through the lungs below the backbone. Immediately I fired, I ran in, pushing another cartridge into my single shot rifle as I ran. The ground rose rather steeply from the lake, and the wounded moose went straight up hill, but after going some twenty yards stopped, and turning broadside, looked back, giving me a splendid second chance. This shot hit him just right, a little behind the shoulder, not too high up, and made a large hole through the middle of his heart, as the bullet had expanded before getting there. He gave a spasmodic plunge forward and then rolled over dead, and I was soon standing over the huge form of my first moose.

George pronounced him to be a five-year-old bull. He seemed to me to have a very pretty even head of moderate size. It had a spread of forty-nine inches and eighteen points. A few fortunate sportsmen will doubtless get better heads this year, but others may not get as good. He stood over six feet in perpendicular hight at the shoulder, but as I had left my measuring tape in camp I could only get his hight roughly. I, however, had my small Austrian scale with me, and I weighed him carefully. After having taken the whole of his inside out of him, including heart and lungs, I skinned and quartered him, and then weighed him in sections with the following result.

Head, with neck skin attached	48 kilos.
Rest of hide	30 "
One forequarter, with greater part of neck	100 "
The other forequarter	90 "
One hindquarter	66 "
The other hinquarter	60 "
Total	394 kilos.
Or taking the kilo at 2 lbs. 3 oz.	862 lbs.

This is the weight of what my guide pronounced to be a fair-sized moose bull of about five years old. He was, however, about as poor as any animal I have ever seen, being much run down by the rut, and when in high condition might easily have weighed I should think another forty pounds or say nine hundred pounds clean, which would have given him a live weight of about twelve hundred pounds, since the paunch, intestines, liver, heart and lungs of an animal weigh about one-fourth of its total weight. An exceptionally large moose bull would, I imagine, scale a great deal more than the specimen I had the opportunity to weigh, but such as he was, I was well content with him, nor am I ever likely to forget the memorable day on which he, my first bull moose, fell to my rifle.

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ONE NOVEMBER DAY'S SHOOTING

AND WOODCOCK, GROUSE AND QUAIL IN THE BAG

By Edwyn Sandys

THE sun looms large above a sea of gauzy haze which piles like airy surf against the forest's rim. It is a windless, dreamy morning, rich with the magic of the Indian summer, the glory of painted leaves, the incense of ripe fruit. In the full fatness of autumn's latter days the world is songless, silent, fat. Those things which sleep—that drowse the long white silence soon to come, are round well-nigh to bursting. Those things that durst not face the nip of steel-skied nights have fled to kindlier climes, while those other things which neither sleep nor flee are revelling in a rich abundance. They know what must come, when Kee-way-din whines about their brushy eaves and the strange, cold white feathers fall. They know that the brushy and still leafy cover will be flattened and that the white wolf of the north will plunge and howl and ramp across far leagues of whiteness. They know the present business of their kind is to eat—eat till craws and skins are tight as drumheads, to wax fat because fat things do not freeze; and they can, if need be, doze for days when times are bad. All this eating and fat content is lazy business and sleep lasts long.

Up in the pleasant room, too, Sleep herself sits beside a narrow cot upon which lies a silent figure. The kindly goddess knows that under her spell men do no wrong and so with light hand laid across his eyes, she sits and watches. Through open windows streams a scented air, fruity from nearby orchards and spiced with the breath of drying foliage.

Thump! A big apple parts its failing stem and strikes a hollow roof. The figure stirs and Sleep flies on soundless feet. Gradually the man gets himself dressed and then he looks the workman. The loose cord breeches closely match the thorn-scarred leggings and they in turn seem to be but part of the broad-soled flat-heeled boots. The sweater has the shade of the dead grass and the old canvas coat admirably matches it.

'is a marvel, that coat—a thing of beauty and a joy forever to its owner—a horror unspeakable to his female kin. One had described it as "A snarl of pockets held together by some remnants of filthy canvas," and the owner had merely smiled. To him every stain upon it was a precious thing, a sign-board pointing to a dear-prized memory and he wouldn't trade it for the mantle of Elijah. Once a fair young thing, a frequent guest, who was clever at giving the last touch to ties and an invaluable advisor in regard to manicure sets, had declared she'd "wash that horrid jacket!" But the little woman who met him this morning was not that sort. Once, long ago, he had explained to her the difference between shooting for count and shooting as a sportsman should, and why there was no advantage in getting upon quail ground too early. She knew that fifteen birds was his limit so far as quail were concerned, and she also knew that the fifteen and perhaps some other game would load that coat at night, if all went well. So when his breakfast was nearly through, she slipped away, to return presently amid a tumult of scratching nails and gusty breathing.

"Here he is, and I gave him just three bits," she gasped, as the strong brute strained at the chain in his eagerness.

"Down—you!" muttered the man, and as the quivering form sank promptly, he continued "Mater mine, thou fibbest—he don't lick his chops that way after straight bread."

"Merely an atom of gravy dear—just a drop was kept, and the bread is so dry and he chews at it so."

"Grease—faugh! Will you never learn?" he growls, but his eyes are twinkling and he has to avert his face to keep from laughing outright, for this question of dog-fare is a rock upon which they regularly split. Right well he knows that Don has had his bread, a trifle of meat and perhaps a pint of soupy stuff to boot, but he wisely makes no further comment for the mistake was lovingly made.

And s[illegible]th, a varmint-looking

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pair, both lean and hard, the long, easy stride of the man hinting of many days afoot, the corky action of the dog proving him sound and keen. 'Tis true his ribs show as if his hide covered a spiral spring, but his white coat has a satiny luster and he puts his feet down as though such things as thorns and burrs had never been. Behind them stands the little figure watching with moist eyes, for one is hers and the other belongs to one of her own. Though they went and returned one thousand times in safety—still, still—it might—etc. Wonderful are thy ways, Oh, woman!

At the corner the tall figure halts and right-about-faces with military precision, the gun is whipped through a salute and at the instant the white dog rises erect upon his hind feet. All these things must be done before rounding the corner, else the day would not be all it should. A kerchief flutters in the distance and man and dog turn the corner and pass in half-a-dozen strides from town to country.

Before them spreads a huge pasture, beyond that a grove of mighty trees, and beyond that the shooting-grounds—farm after farm, with here a bit of woods and there a thicket. For miles the country is the same and through it all extends in a bee-line the double track of an important railway. Along either side of this runs a broad ditch, now bone-dry and bordered with low cat briers. These and the ripe weeds standing thickly in the angles of the rail-fences, form rare good cover for scattered birds.

"Well, Mister," says the man to the dog, "Guess you'd best have a pipe opener right here." He waves his hand and clucks softly and the dog sails away over the short fall grass. A judge of dogs would watch this pointer with solid satisfaction. So smooth is his action and so systematic is his plan of covering ground, that his tremendous speed is not at first apparent. But for all that he is a flier which few dogs can stay with, and best of all he can keep going for a week if need be.

Of course, he was naturally a fine animal, blessed with courage and brains a plenty, but his owner's method—"keep sending 'em" as he termed it, has done much to develop the speed. Needless to say, at the forward end of that dog is a nose—for woe unto the dog that would attempt such a clip without the very finest thing in the way of a smeller.

Half an hour later the man halts on top of a fence while the dog takes a roll. They are now on the edge of the good ground and both feel just right after their preliminary canter. The man fills his pipe, gets it nicely going, then looks at the gun across his knees that appears almost like a toy; but its small tubes are of the best and can throw lead in a style which many costly pieces of larger gauge cannot surpass. Almost plain, but perfect of its pattern, that gun cost about three times what an unsophisticated person might guess as its price, and, as its owner declared, it was money well spent.

"Well, Mister," says the man after a bit, "there's rag-weed, standing corn and thicket—which would *you* advise?" The dog sits up and stares with loving intentness, as the man continues, "When a lemon-headed fool-dog looks at me after that manner he certainly means standing corn, so here goes." At the words he lets himself down, while the dog darts away. Soon he is into his regular stride and beating the ground with beautiful precision. The man watches and nods his head as he mutters, "That villain's going great guns to-day, he'll have 'em bef—" In the middle of a sweeping stride the dog has halted as though smitten by lightning. Some message in the air has reached that marvelous nose and the grand brute stands as though carved in marble. There was no roading, no feeling for it, just an instantaneous propping and a breathless halt. "That's funny," mutters the man, "I'd have sworn—ha!" there is the abrupt rising of a brown, hasty-winged thing which goes darting for a distant cover. At the sight the lazy man suddenly changes. The little gun leaps to the level and before the butt has fairly touched the shoulder, the quick smokeless has hurled its leaden greeting. The bird goes down, unmistakably clean killed while the dog slowly sinks to his haunches. As the man reloads his face fairly shines with joy. "Fifty yards if an inch," he says to himself, "and a bruising old hen at that. Who'd have expected a wood-cock this time of year and way out here." Then he goes to the dog and clucks him on.

As the dog has seen the bird fall, he merely makes a few bounds forward and again stiffens within two yards of an unusually large female woodcock—one of those choice birds only occasionally picked up

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at the tail-end of the season. "Don't like that, eh!" laughs the man, as he holds the bird near the dog's nose. The grand eyes are bulging with controlled excitement, but the shapely muzzle is wrinkled with an expression highly suggestive of disgust. "Wish I understood that. It's funny, but you don't like a dead cock, though you'll stop on 'em fast enough when alive—eh, old boy?" chuckles the man. "Here, take it," he says, and the dog obeys. "Give it to me," continues the man, and the dog promptly drops the bird into the hand, then wrinkles his chops as though an unpleasant flavor remained. It is a grand bird, old and fat, and the druggist's scales later prove it to weigh full eight ounces, an extreme weight for even a female, which is larger than the male.

When again started, the dog sweeps away to a low-lying bit where the withered corn is taller and thicker. Here he circles rapidly, stops for a moment, puts his nose to the ground, then stands looking at his master. The man moves over to him and closely examining the ground presently detects half a dozen small hollows and a tiny brown feather. "Flushed, eh?" he says to the dog and evidently the latter agrees. Now the man's own tracks show plainly, there are no other boot-marks nor has he seen an empty shell anywhere, so he knows the flush has been owing to natural cause. "Mebbe hawk," he says to himself. "If so, where?" His eyes rove over all the surrounding cover and settle upon a clump of thicket in a corner. It is about far enough and certainly looks promising. Away goes the dog as though he could read the other's thoughts. As he nears the edge of the cover his style changes. The smooth gallop slows to a steady trot which presently decreases to a majestic march. Higher and higher rises the square muzzle and up and up goes the tapering stern, while he steps ahead as though treading on tacks. Two yards from the cover he halts with lifted foot in the perfection of a stylish point. "You beauty!" says the man, his eyes flashing with delight. Then he goes to the wonderful white form which hard from set muscles, yet quivers with the tenseness of sudden excitement. The man, too, feels the magic of the situation. His eyes gleam and his teeth grip the pipe-stem as if they would shear it off. His heart thrills with a rapturous anticipation and his strong hands grip the little gun ready for instant action. Right well he knows that the pointer never draws like that or raises head and tail so high except for serious business. A dead leaf falls ticking through the silent twigs and at the first move of it the gun flashes to the level and down again. A smile flickers in the keen eyes as the man moves a step nearer. No matter which way the game may go he is bound to at least have a fair chance, and he knows it. The cover is none too thick for even a straightaway drive, while all other directions mean broad, open. He clucks softly to the dog, but there is no responsive move—clearly this is a serious case. Could it possibly be a—? Ah! the roar of him, as he tore like a feathered shell through the densest growth! The beauty of him as he curved into the mellow sunshine with dainty crest and plumes flattened with his speed. And, oh! the smashing thump of him as he hit the ground some thirty yards away. 'Twas a brave dash, Sir Ruffs, but risky withal, to dare that sunny open in defiance of trained eyes and nervously quick hands. Was it yonder mat of new clover tips, or the red fruit of the brier-rose which coaxed you here a fourth of a mile from your woodland stronghold?

But the dog is eager to be off. The languid air, scarce drifting in its lazy mood, is tattling something. There is some unfinished business, which the stronger scent of the unexpected grouse had interrupted. Now, as the dog slants away on a longer tack, the square muzzle rises higher and the eager stern whips frantically. Shorter and shorter grow the tacks, until the advance steadies to a straight line. Soon the gallop slows to a canter, then to a trot, then to a steady walk. With head and tail held high, on he marches until fifty yards have been covered. Then he suddenly stiffens while the quivering nostrils search the air for positive proof. His erstwhile gusty breathing is muffled now, his jaws slowly open and close, while the marvelous nose seems to be feeling—feeling for a something rarely pleasant. Then, on again, slower and slower, till he seems to fairly drift to an anchorage. Then his hindquarters sink till he is almost on his hams.

Has he got them? Man, if you had ever followed that dog before you'd know he had 'em. When you see that long draw and

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the squatting finish, bet your gun, or whatever you prize most, that he has a bevy and a big one. Scattered birds he will pin in all sorts of fancy attitudes as he happens to come upon them, but when he gets right down to it, that signifies a wholesale order. The man moves up within a foot of the stiffened stern. For a moment the tenseness is dramatic—Then whur-r-r! Something like a mighty shell loaded with feathered baseballs appears to explode in a patch of dried grasses and the air is filled with whirring missiles. Even in the roar and electric rush the trained eyes mark slight differences of coloration, and the trim tubes swing from one to a second with a smooth rapidity which betokens years of practice. Two birds fall a couple of yards apart, and as they turn over in the air the man notes the flash of white and knows his lightning choice has been correct. As he moves toward them there is a sudden hollow roar and a lone bird rises from his very foot and goes whizzing toward cover. The gun leaps to shoulder before he can check it, but it is promptly lowered. "Go on, you old seed-hen and do your best next year," he chuckles, as the brown matron tries to set herself afire by atmospheric friction. Her course is wide of that taken by the brood but he knows she'll call the stragglers to her after he has left them.

And they will be stragglers. Of the twenty strong beauties that roared up ahead of that first point, her sweet, insistent "Ca-loi-ee! cal-oi-ee!" will muster but four when the shadows lengthen. Instead of doing as she had told them time and time again—instead of plunging headlong into the convenient woods, her headstrong family has whirred across the open and dropped here and there in their well-known resort, the railroad ditch. Hither they have come day after day until the awful clattering trains have lost all terrors. In the broad ditch are pleasant runways and much useful gravel, together with cozy, sunny spots, the perfection of dust baths. Here, too, are many unaccountable stores of grain, choicest of corn and wheat, which seems in some miraculous manner to appear there all ready for eating. What better place could there be?

The man looks at the dog and grins with unholy joy. The dog looks at the man and seems to understand. O! they are a precious pair of rascals, are these two.

"You rascal," says the man, "we'll do things to 'em now. It looks like fifteen straight, eh?"

And the dog cuts a couple of fool capers which is his method of evincing a devilish approval. Then the pair of them move after the misguided quail.

"Whur-r! Bing! Whur! Bing! It is almost too easy. Shooting in that ditch where cover is barely knee-high, with a high embankment on one side and a stiff fence on the other, is something like shooting into an enormous funnel—the shot has to go right. The dog does little more than trot from point to point. Bird after bird rises within a yard of the man's boot and is cut down with machine-like regularity. Presently two start together, only to be shattered with a quick double hail. Then one curves over the fence, but a rising mist of downy feathers tells that he got it just in time. Then another pair, and as the second barrel sounds, a third rises. The cases leap from the gun, a hand flashes to and from a pocket—Burr-r!

"Here's where we quit—that makes fifteen," says the man, as the last bird is gathered. He sits down on a convenient knoll, pushes his hat back and grins at the dog. The latter, after a hesitating forward movement, which would indicate his belief that "there's more," also sits down and stares expectantly at the grimy coat. "Yes, I'll give you half. You've done mighty well, and for once it's fifteen straight," chuckles the man, as he produces the sandwiches. The dog gets a bit more than half, for this is a red letter day. Then the pipe comes out, and for half an hour the pair of worthies lounge in perfect peace. Little do they know or care about trouble. Twin tramps are they, heedless of the burdens of life, careless of its future. Sufficient for them that the afternoon sun is warm, the grass thick and dry. Naught care they for the five-mile homeward trudge, for neither is more than comfortably tired, and when they rise refreshed, they will stride away as though they had just begun.

And the little woman will have two glorious meals all ready, and will learn at a glance that things have gone well for at least one November day.

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HOW TO PRESERVE TROPHIES IN THE FIELD

By Thos. W. Fraine

MANY trophies of field and stream are annually lost through lack of proper treatment and care after being secured, and a well handled specimen rarely reaches the taxidermist; therefore some practical suggestions to sportsmen will not be out of order.

All antlered heads should be cut off at the shoulders and cut open on top of the neck as far as the antlers; then cut across the skull to each antler, work the skin away from base of antlers with knife, cut ear cartilage close to the skull; skin down toward the nose, being careful not to cut the eyelids or sinus, the hollow indentation in front of eyes. Do not cut the nostrils and lips too close to the outer edge; a good plan, before skinning, is to open the lips and run the knife around on the inside close to the bone; this not only avoids bad work about the muzzle but expedites the skinning.

After the hide is off, the ears should be skinned out as much as possible, leave the cartilage in, all surplus flesh pared off and plenty of salt rubbed into it. Roll the skin up for about twelve hours, then shake the salt and water out; apply more salt and hang up by the neck (not by the nose) in the shade to dry.

Clean and save the skulls.

If antlers are in the velvet stage they require careful handling, and when possible should be well saturated with turpentine.

Never cut a mammal's throat to bleed it; this can be done fully as well in the breast.

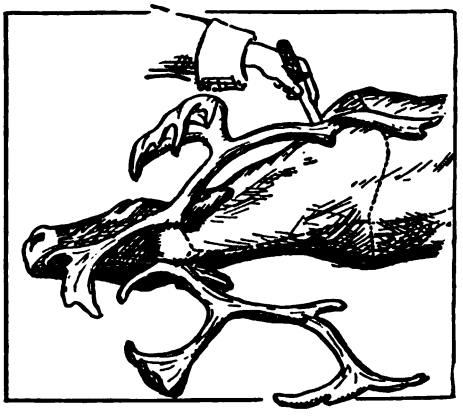
In the case of moose, the bell should be split open and salt rubbed well into it.

If the mammal is to be skinned and mounted entire, careful measurement should be made of length, hight and girth; the legs should be opened well down into the hoofs, and severed at the knee; the tail split open underneath and all well salted.

Specimens taken in tropical countries where excessive heat prevails, and where it is impossible to get them out for many months, should receive an application of arsenic, in addition to salt, whilst the skins [illegible] green and soft, so as to keep destructive [illegible]ts out of the coat.

Bear skins, especially when large, are difficult to handle properly in the field. When intended for fur rugs the hides may be laced out and the fat scraped away, but the head and especially the nose, should never be laced, and stretched out of all proportion to what a head should be; the feet should be laid open, all flesh and cartilage removed, and salt worked well into the pads. The feet of all ruminants make handsome articles for ornament or use, and should be taken care of; cut them off at the knee.

The ears should be skinned out, otherwise the fur will surely slip on them; do



TO CORRECTLY SKIN OFF HEAD, FOLLOW DOTTED LINE.

not remove cartilage; this rule applies to foxes and other small mammals that are large enough to be thus treated. Bear in mind that salt, and plenty of it, is an essential factor in an hunting outfit.

Fish up to eight or ten pounds in weight should be opened on the side along the lateral line, the entrails removed through this opening.

For a preservative, alcohol and water in equal proportions; Sportsmen's Rex; or a strong [illegible] more efficacious, in the ord[illegible]

I [illegible] fish, its length an[illegible] and the sk[illegible]

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A REMARKABLE ADVENTURE WITH GRIZZLY BEARS*

By Elmer Frank

MY first savings in life were invested in the 7-L (Seven-H-L) horse ranch, located in the heart of the mountains of Wyoming, my brand numbering about eight hundred head. This was my outfitting point, and thither I would fly at the earliest approach of Indian summer, that indescribably dreamy, restful season, only experienced in its full glory along the base of the main range of the Rockies. On the occasion to which this narrative refers, I was accompanied by six guests, to wit: a United States judge, a captain now in the Philippines, two Omaha lawyers, an ex-Missouri sheriff, a British capitalist, and, to me, the most important of all, a full-fledged Texas cowboy, without whose brave and timely assistance this story would never have been penned.

His name is Clark—Ed. Clark, "Uncle Ned" the "punchers" call him, which would indicate age, although not yet forty, one of those unaccountable misnomers peculiar to the far west. He is far from handsome, resembling in form one of his own gnarled, timber-line scrub cedars, rather than the sturdier growth of the lower altitude pine. His wicked little eyes are black and piercing, and when animated rival the rattler's in their scintillations of viciousness, and yet, God bless him, when, crawling from under a dying bear, bruised, wounded and faint from loss of blood, I saw that rugged face through the willows not ten yards away, hailing me with words of cheer, it had a halo surrounding it. It was a battle royal, covering a period of about twenty minutes, the details of which, as I saw them, will ever remain indelibly stamped on my memory.

Five grizzly bears, weighing not less than six hundred pounds each, surprised in their lair by two men, threw down the gage of battle. The issue was promptly accepted, from necessity, as there was no escape, and the fight was on.

Our camp was pitched in Halleck Canon, at the headwaters of several streams flowing in as many directions, through a broken and mountainous country. Game was in abundance and our party had bagged its quota of elk, deer, antelope and mountain sheep. No bears as yet, although at our nightly campfire comparisons of the day's events, each party had wonderful tales to relate of encountering innumerable trails, fresh beds, mutilated carcasses of game, and other signs, indicating that they were banded together in bunches ranging as high as thirteen. We counted that many fresh trails crossing a mountain meadow, and on this particular morning all of our party except Clark and myself, got an early start, bent on their

*This was so extraordinary a tale that corroboration was sought from two of the members of the party, and is presented herewith.—EDITOR.

January 29, 1901.

CASPAR WHITNEY, Esq.,
239 Fifth Avenue,
New York City.

Dear Sir:—

I have your letter of the 25th relating to the story of Elmer D. Frank, of Washington, about his fight with grizzly bears in Halleck Cañon, Wyoming. Inasmuch as you do not state the details which you wish me to confirm, I am obliged to say, First: That I sincerely believe Mr. Frank is not misrepresenting the affair to you.

Second: That the truth of the story precludes any temptation to exaggerate.

I believe it was in the fall of '89 when our party was in Wyoming. I remember very distinctly that all of the party except Clark and Frank were out hunting during the day; and returning in the evening, we were [illegible] that Frank and Clark had gone out late in the [illegible]oon after grouse. It was twilight when Esta[illegible] and I, who were bathing in the stream a short [illegible] from the camp, were disturbed by the crazy [illegible] Elmer and Clark returning to camp. They [illegible] most victory-intoxicated men I ever saw, notwithstanding Frank was scratched and bitten in several places, though not seriously.

We hastened to the camp and the party gathered and were told the story of the fight with the five grizzlies as Frank has undoubtedly written to you. As I remember, Frank was bitten in one hand, in the arm and in the buttock. We treated the wounds in the best way we could and were somewhat afraid of blood-poisoning. You may be assured we got very little sleep that night and were out early in the morning.

We found the five grizzlies, which had been cut open and eviscerated by Clark and Frank before they returned to camp. We all pitched in and skinned the five bears. I should say they were four or five years old. Of course we went through the bushes and had the story repeated over and over to us. The condition of the bushes and the earth was evidence enough of a desperate contest, if anyone had for a moment doubted the story.

You are at liberty to use this letter in any proper way you choose.

I am, very truly yours,
Dic. H. J. D. H. J. DAVIS.

I wish to confirm in full the foregoing statement of Judge Davis. I have the pelt of the one I helped to skin as a rug.

H. D. ESTABROOK.

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destruction, or a fight to a finish if unearthed. I was not feeling well and Clark remained in camp to keep me company. About three o'clock in the afternoon he proposed that we ride out and kill a mess of blue grouse for our hungry companions, and prepare a smothered feast for them on their home coming. We thereupon saddled up our horses and proceeded about two miles up the canon of a little creek, where a small lake had formed by falling rocks turning the current of the stream. The lake was roiled and the banks were beaten down by the fresh tramping of bears. After a hurried examination Clark exclaimed: "They are here on this creek—the tracks are fresh—we flushed them when we rode up and we're going to make a killin' sure." Here it is necessary to state that the horse I rode that day was a natty, powerfully built cow-horse, swift as an antelope and mettlesome as a Kentucky racer. He was the pick of eight hundred, and when he scented the bears he began to get troublesome. However, we forced him up the creek toward a patch of willows, about seventy-five feet in width, the direction which the bears had taken, Clark leading the way.

These mountain willows grow in bunches, their branches spreading and interlacing at the tops, thereby making an almost impenetrable thicket. Here our quarry had evidently retreated, and a royal stronghold it was. On the opposite side a perpendicular cliff arose several hundred feet in hight, with a ledge about six feet in width paralleling it, and peering about three feet above the tops of the willows. On our side of the creek the canon broadened into a sage-brush flat of about two hundred yards in width, and abutted against the willows, forming an almost perpendicular embankment about twelve feet in hight. We were forcing our horses up onto this flat when the above conversation occurred, and Clark finished by excitedly exclaiming: "And by thunder, there they are are!"

The brush seemed to be alive with them as they growled and leaped about, and one big fellow stood on his hind legs, with his head and breast towering above the tops of the willows, deliberately surveying us and hailing us with inquisitive grunts.

Clark's horse was a gentle old pack animal and he had no trouble in quickly dismounting and withdrawing his Winchester [illegible] its saddle-sling. He took deliberate aim and fired, old bruin dropping dead in his tracks. During this short period I had succeeded in dismounting and was fighting my horse in a vain endeavor to get my Winchester from the saddle-sling. He reared, plunged and kicked viciously, but I held his bit with one hand and the gun with the other until Clark shot, when he gave a mighty leap into space, broke my hold, sent me rolling into the sage brush and ran off with my gun, Clark's horse closely following. When I regained my feet the commotion was still going on in the brush and another bear got on a rock and stood erect. Clark began to get a little excited and exclaimed: "The woods is full of 'em—Great God! Look at 'em!" I told him to keep his head and blaze away, which he did, wounding this fellow, who dropped off his perch and began to bawl and kick up a great row generally. Immediately three other bears stood on their hind legs, and the wounded one regaining his feet they came for us with growls of rage. This was too much for me, being armed with a knife only and the bears not ten jumps away. I told Clark I was going to quit him and rustle my gun, which I proceeded to do. As soon as I turned tail I ran for the horses, about a hundred and fifty yards away, whose bridle reins had gotten entangled in the sage brush, thus securely holding them. As I ran for dear life I heard the sage brush cracking behind me, but no more shots. I did not dare look around, as I expected Clark was down, and that a bear would grab me every jump, but was intensely relieved when he chirped: "They made it too hot for me—my cartridges ran out—I had to quit 'em." Although he had plenty in his belt, his gun was empty, and he was too closely pressed to reload. Thinking discretion the better part of valor, he had followed me immediately, hence neither of us knows whether the bears in this charge reached the top of the embankment on which we stood. We hastily secured our horses, removed my gun from the sling, filled the chambers with the full quota of cartridges, fastened our lariats to the bridle bits so that we could hold our horses while shooting, and returned to redeem ourselves from the stigma of so hasty and undignified a flight. We rode up and down the willow patch, halloed [illegible] into it, but no sign of [illegible] Thinking that, of cours[illegible]

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taken flight up the canon (and they had to go either up or down to get away), we followed the creek up towards its extreme timber line, beating the brush and exploring every possible hiding place. A hasty examination failed to disclose any trail in that direction, and we at once returned to our battle-ground, about three miles down the creek, feeling sure we would rout them out below that point. On our arrival there we dismounted, went into the brush, dressed the dead bear and dragged him out with our lariats attached to the horns of the saddles.

As before stated, the willows grew in bunches and interlaced at the tops, and I was compelled to walk in a crouching position and at times to crawl on my knees. I could not see ten feet ahead of me, and was thereby greatly handicapped. I had not proceeded twenty yards from the point where Clark left me when I was greeted with a terrible growling and the crackling rush of a heavy body. I fired, and was embraced, it seems to me, almost simultaneously. The bear's mouth was wide open and he towered way above me—I distinctly remember that—and instinctively I ducked my head, knowing that it would be crushed like an egg shell if exposed. For this reason, when we came together, I found my head under his shoulder, and immediately clinched him around the body, holding on for dear life, and calling to Clark as I went down under him. Clark heard my call and began to cautiously work his way toward me. Of course I had no idea of time when in that position, but Clark estimates it to have been five or six minutes before he reached me and fired. He says he forthwith responded to my call, guided by the racket the old bear was making; that he moved slowly and cautiously and at a point not fifteen feet away, caught the first glimpse of us. He crouched down and awaited some time for the bear to expose a spot for a fatal shot, without danger of hitting me. He saw that I was alive and "staying with him." He could not shoot him in the heart for my head was there, nor could he see bruin's head, and he dared not move further for fear of attracting the attention of and bringing the others down on him. Becoming desperate and unable longer to stand the suspense, and the bear's [illegible] now turned toward him, he took [illegible]im and fired, the bullet entering the bear's hip, plowing its way just outside the ribs and lodging in the neck. There was a terrific crashing of brush, growling, and bawling all around me. Whichever way I looked I could see bears either dancing around on their hind legs or rushing to and fro. My bear would raise up with me, shake me like a rat and chuck me down again, threatening to loosen every joint in my body, but I realized that my only hope was to hold on. Suddenly I felt his teeth tearing at my hip, the only spot of my anatomy he could reach with his mouth, which he severely wounded, and literally tore my trousers and part of my chapps (heavy calfskin overalls) from me. Had it not been for the latter he would have made short work of my leg then and there.

I was in desperate straits and had about given up hope, thinking Clark had deserted me. The infamy of this act seemed horrible to me, and a wild desire to live long enough to murder him overcame me. I took fresh heart, held on tighter, and thought of my knife in a scabbard at my left side. I let go my right grip, worked my hand between old grizzly and my body and reached my knife, which, to my horror was tied in the scabbard with a buckskin string, used to keep it from jolting out when I was in the saddle. I labored hard to untie—to break it, but old bruin did not propose to have it that way. He let go my hip and seized my hand, crunching through and through it. I never expected to see it again. In my dire distress I thought nothing of it—it was only a hand, did I not have another one still left me? Just then, to my indescribable joy, I heard the sharp report of a Winchester not twenty feet away. It was Clark. Clark, the heroic Texan, now my savior, whom but a moment ago I thought a cowardly cur, and for whom I had murder in my heart. I quickly struggled to my feet, seized my gun, and just in time to see poor Clark go down under the now doubly enraged and wounded bear, it striking wickedly at him with its paw, hitting his gun and sending it spinning in the air. True to the hunter's tradition he played 'possum in an admirable manner. He saw me get on my feet, so he said, and thought I would kill the bear before it hurt him very badly, hence he lay perfectly still. But in this he was doomed to disappointment. My gun was full of sand; it refused to work. I threw down the lever and was

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working the sand out of it as rapidly as possible. I saw my task was useless, the magazine refused to give up its cartridges. It was an awful moment of suspense. I forgot myself and thought only of poor Clark. One wrench on the lever and it sprang back into place, but no cartridge came with it. I could only work with my left hand, and the third finger of my right, but I quickly snatched a cartridge from my belt, and was thrusting it into the barrel, when another bear leaped on top of me from God knows where, I am sure I don't. I went down all in a heap under the crushing weight, and poor Clark's heart almost ceased beating when he heard me call, "Here comes another one—I can't help you—he's got me again." I don't believe this bear hurt me in the least, unless it was my left arm, which had several tusk holes in it, and was pinched until it was black from wrist to elbow the next morning, but I have no recollection when it was done. He had evidently been wounded by one of our shots, for he tore up the ground and chewed at the willows all the time he was over me, almost burying both of us in dirt and broken sticks. Presently there was another roar and crash and tophet broke loose again, which evidently attracted my bear away from me, as he left me as suddenly as he had attacked. I was nearly used up, but I had life enough left to regain a sitting position and get hold of my gun once more, when Clark's bear, seeing me move, left him and came for me. I verily believe I made the last effort I was capable of at that time, and just as he was coming down on me, I poked my Winchester blindly against him and pulled the trigger. He fell dead with his head on my breast, knocking the breath out of me, and I went to sleep. My nap must have been a short one, for I was awakened by Clark calling to me, "Stay with 'em, Elmer, I've got my gun; you hit that d——l, I saw him fall. Give him another." I opened my eyes, looking into those of the dead bear on top of me. He didn't look a bit dead, and it was a few moments before I could persuade myself to make an effort to move, and when I did so it was as gingerly as one would walk on eggs, fearing he would suddenly awaken and make up for lost time. With considerable pain and labor, however, I finally succeeded in extricating myself, and bare-headed, bare-legged, with blood and sand smeared and plastered over me from head to foot, torn, bleeding and sore, I dragged myself toward Clark, who had retreated to and mounted the stone ledge on the outer side of the brush. I had nearly reached him. He was standing on the ledge waiting to help me up. He asked me if I were much hurt. I told him I thought I was all chewed to a sausage, but that I was indebted to him for my existence; that his was a brave, generous and manly act, and in short, "You are every inch a man." He extended his hand to me, saying, "Put it there and the same right back at you." But I did not get close enough to "put it there," for here came the remaining three bears on another furious charge. We fought them off three or four times, blazing away as they would leap over the brush toward us, before I succeeded in reaching the ledge. The smoke of our guns seemed to bewilder them, for after a volley, they would jump up into it, bite and spat at it with their paws, and then retreat to their den, which we then discovered was within a few feet of where they had me "in chancery."

After the last charge they seemed content to lay quiet, so Clark walked up the ledge about fifteen yards to try and peer into the den. He called to me that he could see the entrance, and to look out, as he would throw a stone into it, and as he threw, I fired. We were answered by a howl, and two bears came straight at me. Two lucky shots from my rifle finished them, and they died in each other's arms at my feet near the foot of the ledge. Clark was wild with delight. He was sure there was only one more, and that badly wounded, as he was making the canon ring and echo to his wails of pain; so we procured our whisky bottle (always carried in the Rocky Mountains for snake bites, you know[?]), and washed my wounds, tearing our handkerchiefs and the tails of our shirts into bandages, to do the best piece of dressing possible under the circumstances. The balance of the whisky, it is needless to state, was used to wash the dust from our throats and revive our drooping spirits. We then deliberately sat down for the first time since the battle began, and discussed how we should dispose of the remaining bear, who was still as noisy as ever. Clark proposed to set fire to th[illegible] burn him out; but it wo[illegible] destroy

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our precious pelts, and besides, my only hat within a hundred miles, and no other procurable, was under one of them. Dusk was on us and we must act quickly, whereupon we determined to assault the den. We arrived within twenty or thirty feet of our quarry, when a gust of wind blowing down the canon parted the willows and disclosed the old fellow lying on his stomach with his head on his forepaws, as if resting. I sent a bullet quickly to his heart and quieted him forever. It was now almost dark, and after dressing our game we struck out for camp, which we reached about nine o'clock. Our companions had all returned and we, of course, were the heroes of that night's campfire, and of the "smother of grouse" which was never smothered.

In all the encounter Clark was fortunate enough not to receive a scratch, and this fact should be explained, if susceptible of an explanation. Old hunters say that a badly wounded grizzly will seize and hold onto the first object within reach, and expend its remaining strength in a desperate endeavor to rend it to atoms. I have seen this fact verified in at least a half a dozen instances. When the bear, on being wounded, sprang off me in its leap for Clark, it grabbed a mouth full of willows, and was crunching at them while over him, and he quietly playing 'possum. This might explain why the second bear did not make mincemeat of me, as both of them died with their mouths full of brush.

I make this statement for what it is worth, anticipating sceptical mental inquiries upon this part of my story, and for the additional reason that it is information of sufficient value for the hunter to remember.

BITS OF WOODCRAFT

THE AUTUMN CAMP

By Horace Kephart

TO those who camp in autumn a good fire is the prime necessity of comfort. Green logs should be used, instead of dry, because they last longer. The best woods for an all-night fire are hickory (especially shellbark), sugar maple, black birch, yellow birch, red birch, box elder, pecan, dogwood, hornbeam, and any of the oaks excepting red, willow and water oak. Soft woods burn too freely, and leave no durable coals. Chestnut snaps and crackles, sending sparks and embers in every direction, and so do hemlock, sassafras, dry cedar, and spruce.

Some woods are almost incombustible when green: such as aspen, buckeye, red cedar, sour gum, laurel, poplar, sassafras, sorrel, sycamore, tamarack, and tupelo. Backlogs of buckeye, butternut, sour gum, sycamore, or tupelo are preferable, because they last so long, and, when once glowing, give out a moderate but steady heat.

For a quick-cooking fire use dry hardwood should, as a rule, be taken from [illegible] trees, stumps, and stubs, for wood picked up from the ground is apt to be soggy or decayed, and will make more of a smudge than a fire. If you want long-lived coals for roasting or baking, split some green hickory (shellbark splits easiest and burns best) to uniform pieces about half the thickness of common stove-wood, and pile it cob-house fashion. Then it will all burn down at the same time, leaving hard coals that will give out strong and uniform heat, without flame or smoke. Good kindling is procured by splitting the firm, dry wood from an old stump, or from dead but sound twigs plucked from standing trees, or from dead shoots. In a heavy rain it is hard to start a fire, unless you know how. Dry punk can be found under the excrescences of the bark of beech, sugar maple, or yellow birch trees, or in dead pines; and if there are any fat pine-knots about you are in no trouble. But in a deciduous forest the simplest way is first to collect plenty of dead twigs and branches from standing trees, assort it according to thickness at the prospective fireplace, then

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cover yourself with a blanket or other shelter as though your head were the ridge-pole of a tent. Now select your best stick, shave it without removing the shavings, one shaving stopping immediately behind the other, until you have a bunch of them. Make three such bunches of shavings, stand them in a tripod, thick end up, arrange your slenderest twigs around them like a cone, light the shavings, add sticks of gradually increasing thickness to the cone, shelter the fire as long as you can, and then let it go. Now get a pair of short sticks several inches thick, lay them parallel, one on each side of the fire and as close to it as you can without tumbling everything down. As soon as practicable, lay a dozen thin sticks across the fire from one bed-stick to another, and a half-inch apart, then a similar layer on top and at right angles to the first, and so on, cob-house fashion, gradually increasing the size of the sticks. Or, you can build the whole affair wigwam-shape. The idea is to begin with twigs that are small enough to ignite easily, feed them gradually, and pile the fuel methodically so that air can circulate freely beneath and through the whole pile.

If you want a torch, use a pine-knot, or strips of birch bark in a cleft stick. To make a torch that will last several hours, take half-inch strips of cedar bark, or bark pounded like oakum, and bind together with green twigs into a faggot two feet long or more.

The bark of various trees is very useful in emergencies for shelter, waterproof ground sheets, ponchos, camp utensils, canoe coverings, corseaux, straps, twine, rope, etc. The bark of the following trees peels easily: alder, basswood, paper birch, yellow birch, cedar, slippery elm, white elm, winged elm, balsam fir, pig-nut hickory, shellbark hickory, leatherwood, locust, mulberry, pawpaw, and spruce. Basswood bark (though not of every tree) peels even in winter, and the tough and pliable inner bark is excellent for straps, ropes, and matting. Its bark should be removed in long strips, spread on the ground to dry, then soaked in water; thereafter the inner bark is readily separated from the worthless exterior. (Warning: the loose bark of old basswood trees is a favorite hiding-place for bedbugs.) Leatherwood (moosewood) bark is so extraordinarily tough that it is used in the Ozarks for gate-hinges and even for whip-lashes. It is a favorite substitute for twine and straps. The unlimited utilities of birch bark are well known. The best substitutes for it in western forests are basswood and slippery elm bark. The inner bark of the latter tree is preferred to all others by Indians for ropes, belts, braided tump-lines, nets, etc., because it is soft to the touch, can be closely braided, and is very durable. They remove the outer bark, divide the bast into narrow strips, and boil it in ashes and water. After drying, the strips are easily separated into small filaments, and these strings run with the grain several feet without breaking. The squaws used to weave it into garments. The crushed bark makes a good substitute for oakum. Slippery elm bark is inferior only to that of the paper birch for canoe coverings. It is said that an elm bark barrel, if properly cared for, will last a century. White elm bark may also be used for the same purposes, but it must be suppled by pounding.

The bark of balsam fir and of spruce are good for roofing lean-tos, for corseaux or packs, etc. Where birch, spruce, and elm do not grow, the bark of pig-nut hickory may be used for canoe coverings, etc. The inner bark of yellow locust is fibrous, and makes good cordage. That of red mulberry is excellent, its fibers being so fine that the Indians made twine of it fit for weaving. Their squaws took the bark from young shoots that rise from stumps. After drying it in the sun, they beat it until all the woody part fell out, then gave the remaining threads a second beating, then bleached this lint by exposing it to the dew, spun it to the coarseness of packthread, and finally wove it into clothing. Pawpaw bark was similarly treated. It is tough and pliable, suitable for fish nets.

When practicable, bark should be stripped in spring or early summer. Select a trunk free from knots, girdle the tree near the butt, and again at a point as high as you can reach. Then cut a vertical incision through the bark from upper to lower girdle, get in under the bark with a wedge-shaped club, and carefully work the bark free. A two-foot elm, for example, thus yields a sheet of bark six by seven feet that is excellent for shelter and other purposes.

Good withes are procured from the rootlets of cedar, white spruce, and tamarack, from the shoots and twigs of hickory, sweet gum, witch-hazel, and leatherwood. A

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large withe for binding together rafts or shanty logs is easily made by cutting a six-foot hickory shoot, shaping the butt end to fit a notch in a log, inserting and wedging it, and then twisting it. A sprout over an inch thick at the butt can thus be twisted in a few moments, and it is then almost as pliable as a hay rope.

For bedding, use, when obtainable, the boughs of balsam fir or spruce, or beech leaves, basswood boughs, or the bushy fronds of cane ("cane-feathers," the southern swamper calls them). But anything between you and the ground is better than nothing.

Durable camp brooms are made from twigs of yellow birch, laurel, white cedar boughs, branchlets of hemlock, willow, etc.

In setting up camp, it is useful to know that the following woods are straight-grained, split easily, and can be riven into serviceable boards with a common ax: basswood, cedar, chestnut, cypress, slippery elm, hackberry, white oak, white pine, and spruce. Black ash parts readily into thin layers, and so do basket oak and rock chestnut oak. They can be divided into fine shreds or ribbons for basket-making, etc. On the contrary, the following woods are difficult to work: beech, box-elder, buckeye, rock elm, white elm, hemlock, locust, hornbeam, sugar maple (especially when frozen), osage orange, and sycamore. Winged elm, sour gum, and tupelo are exceedingly stubborn, and cannot be split with a wedge. The spots in the sap-wood of swamp hickory will turn the edge of the hardest steel.

For dugouts, wooden utensils, etc., the best woods are cedar, chestnut, cucumber, cypress, yellow poplar, and sassafras. I fancy that northern readers will exclaim at the idea of building a dugout canoe from sassafras, which is a mere shrub with them; but in southern forests it grows to a hight of one hundred or even one hundred and twenty-five feet, with a girth of six or seven feet. Being as light as red cedar, very durable in water, and quite tough when well seasoned, it makes fine canoes.

Tupelo roots are so light and spongy as to make good substitutes for cork. The outer bark around the butts of balsam poplars may be used for the same purpose.

Small stems of black walnut are easily perforated and make good pipe-stems. For spiles, use staghorn sumac or elder.

The only common trees from which sap will bleed from a cut are the birches (especially black and yellow birch), the maples, hornbeam, butternut, walnut, and sparingly, the hickories. Sugar maple usually bleeds from October to May, but the flow of sap is greatest from, say, the middle of February to the first of April. Black birch bleeds from the last of March to the middle of May. Sugar can be made not only from the sugar maple, but from the silver or soft maple, box-elder, and, in very limited quantities, even from butternut sap, while birch sap yields an inferior syrup. In spring or early summer, if one is traveling through a birch or maple forest and can find no water, he can usually quench his thirst with sap. Speaking of water, by the way, it is well to know that the water in cedar or cypress swamps is not stagnant, but wholesome and palatable.

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INDIAN POTTERY

By George Wharton James

THOUSANDS of travelers who have crossed Arizona and New Mexico on the railways have watched the Indian women and girls as they boarded the trains with their baskets or bowls of pottery, or walked alongside the track with finely decorated, large "ollas" on their heads.

To the intelligent mind there must come an instinctive desire to know something of the methods followed by these primitive potters in making and decorating their ware, of the ideas they have in their minds as to the designs they incorporate, and of the various uses they themselves put this ware to.

Basketry was, perhaps, the earliest of Indian arts. If so, pottery was next, for they hold the natural relationship of mother and daughter. These terms "mother and daughter" are often used in a figurative sense, but in describing the origin of the art of pottery, Lieutenant Frank H. Cushing shows clearly that the basket was the real, the actual mother—the matrix—of the first pot. He was ever seeking for the natural origin of things, and, one day in 1881, while visiting the Havasupais in Cataract (Havasu) Canyon, in Northern Arizona, he saw, and thus described, the actual and accidental manufacture of pottery. The primitive condition of the Havasupais can be known from the facts that "they still hafted sharpened bits of iron, like Celts, in wood, and had not forgotten how to boil food in water-tight basketry, by means of hot stones, and continued to roast seeds, crickets and bits of meat in wicker trays, coated inside with gritty clay." One of these round wicker trays was "evenly coated inside with clay, into which has been kneaded a very large proportion of sand, to prevent contraction and consequent cracking from drying. This lining of clay is pressed, while still soft, into the basket, as closely as possible, with the hands, and then allowed to dry. The tray is thus made ready for use. The seeds or other substances to be parched are placed inside of it, together with a quantity of glowing wood coals. The operator, quickly squatting, grasps the tray at opposite edges, and by a rapid spiral motion up and down, succeeds in keeping the coals and seeds constantly shifting places and turning over, as they dance one after another around and around the tray, meanwhile blowing and puffing the embers with every breath to keep them free from ashes and glowing at their hottest." It is apparent that this clay lining would soon grow hard by constant heating, and, by and by, it would separate itself from its basket matrix. Thus a perfect and complete clay vessel, capable of sustaining itself, would be discovered, and the discovery once made, accidental manufacture would give place to purposeful.

After the first crude pieces of pottery were made, and as the art developed, rigid basketry gave place to nets or sacks, as matrices. Professor Holmes, who has exhaustively studied the subject, thus presents the results of his extensive observations. "There appears to be a pretty general impression that baskets of the ordinary rigid character have been extensively used by our ancient peoples in the manufacture of pottery, to build the vessel in or upon; but my investigations tend to show that such is not the case, and that nets or sacks of pliable materials have been almost exclusively employed. These have been applied to the surface of the vessel, sometimes covering the exterior entirely, and at other times only the body or a part of the body. The interior surface is sometimes partially decorated in the same manner."

These remarks naturally lead one to a study of prehistoric pottery. And here, at once, upon a cursory examination, we are compelled to recognize that we are dealing with far cruder art manifestations than those discovered in the ruined cities of the old world. Here are no exquisite Hellenic or Etruscan vases. Those are the products of a people far advanced in art culture, the people of the Parthenon and the Acropolis.

On the other hand *these* are the earliest efforts of a people in whom the esthetic senses are but just beginning to be aroused, a people of no architecture, no sculpture, no esthetic arts.

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There is almost as much difference between the prehistoric (and, indeed, the modern) pottery of the Amerind and that of the ancient Greeks and Etruscans, as there is between the wigwams, wickiups, kishes or hogans of the North American savage and the architectural glories of the Athenians. Yet he is unwise, who, because his trained eye rapidly discerns these marked differences, scorns a further look at, or study of, the humbler works of the earliest inhabitants of our own land. We can best realize the struggle of mankind in its upward evolution by a careful study of the work accomplished in the earliest days of that long and weary fight. How one must sympathize with those prehistoric fighters of our battles. We use our pottery and other ware with conscious unction that we are favored of the gods, and we despise our prehistoric savage ancestors who discovered them for us.

Prehistoric pottery is exhumed from almost every portion of what is now United States territory. Pennsylvania, Tennessee, Kentucky, Ohio, the District of Columbia, Arkansas, Illinois, Missouri, Iowa, Colorado, California, Alabama, the Carolinas, New Jersey, Maryland, have all given their quota; but especially has the ancient and modern pottery of the pueblo regions of Arizona and New Mexico attracted the attention of scientists and those generally interested in the quaint civilization of these interior parts of our country. It is to the pottery of this fascinating region that the major part of my article will be devoted. For a long time some writers insisted that the pottery of the mound builders was much superior to that of the southwest, but those who know both wares will agree with me that there are scores of specimens in the work of the ancient pueblos that equal and often surpass the one or two fine specimens discovered in the mounds of the Mississippi Valley.

One great difference between some of the pottery of the eastern regions and that of the southwest is that much of the former was moulded in pliable fab[illegible] such as nets, sacks and the like, while [illegible] ior portion of ancient pueblo ware [illegible] coiled variety. This process [illegible] all over the country, [illegible] est it was the principal m[illegible]

With [illegible] modifi[illegible] and [illegible] of [illegible]

same. After carefully selecting her materials, and there is as much ability displayed in the choosing and mixing of the clay as there is in the manufacture and decoration of the pottery—the worker thoroughly kneads or "puddles" it to the right consistency. As soon as she is ready to begin the actual manufacture of the piece of pottery she has in mind, she takes a basket or some saucer-shaped object, and, using this as a base, takes a long strip of clay which she has rolled smooth. This roll looks like a piece of rope. With this roll she begins to make a coil in the saucer or basket, placing each coil in order tightly and carefully against the one that preceded it, dipping her fingers every few moments in water, which is always close at hand. In a few moments the base of her piece of pottery is made. With a small spatula, made either of wood or bone, she smooths all the ridges made by the coil, so that it loses all suggestion of having been made from round strips of clay. The base completed, the potter now lays her coils of clay in the position she requires them, smoothing out the coils, both inside and outside of the vessel, as each three or four coils are laid, dipping the spatula in water each time she uses it. Thus alternately coiling and smoothing, the process continues until the vessel is completed.

If, however, the vessel is to have a neck or a small aperture the fingers must be more dexterously used, or a rounded pebble or a small piece of curved bone or gourd-neck used upon which to model the clay. It is now placed in the sun to dry. If it is to be a finely finished piece of ware, it receives a thin coating of liquid clay when partially dry, and after it has been polished with a smooth stone. Then once again it remains in the sun until it is well dried and ready to be painted. This work I have seen done by men, youths, women and girls. Some are much more dexterous than others, but all do remarkably well, considering the crude material with which they have to work.

Most of the designs of the Hopi pottery of to-day are exceedingly crude, there being but few first-class designers and painters among them.

With brushes made of fine hairs or threads of the yucca, and with paints of different colors, selected from the colored rocks close by or in remote regions, the decorator takes the sun-baked piece of pottery on her lap,

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as she sits on the ground with outstretched legs, and without any preliminary tracery begins at once to work out her design. When the painting is done, the vessel is allowed to stand again until dry, and then it is ready to be baked. The fire for this is made in a shallow pit, the fuel consisting of one or two alternate layers of wood and dung, the latter being regarded as especially good for the baking of pottery. Good-sized stones are also placed in the fire, and, as soon as these are thoroughly heated and the wood has been reduced to ashes and the smoke has disappeared, the pottery is placed in the ashes with the flat pieces of red-hot fuel over them, and allowed to remain until completely baked.

Dr. Fewkes thus classifies the ancient ware of one of the Hopi villages he recently excavated. 1. Coiled and indented ware. 2. Smooth undecorated ware. 3. Polished decorated ware. (*a*) yellow, (*b*) red, (*c*) black and white. While the scientist finds other classifications for pottery from other localities, these three general divisions will give us a comprehensive and fairly accurate survey of the whole field, which practically embraces all the area included from Southwestern Colorado to the California line and down into the table lands of Chihuahua and Sonora in Mexico. Arizona, New Mexico, Southwestern Colorado and Southern Utah are full of the ruined structures of these people. Scores, hundreds, have been discovered and explored, but there are doubtless as many more yet to be discovered by the patient investigator. Indeed, every new expedition, large or small, reports new "finds." Dr. Dorsey for the Field Columbian Museum, Dr. Fewkes for the National Museum, Governor Prince for the government of New Mexico, Dr. Miller for Arizona, and a dozen or more of private investigators and explorers have been wonderfully well rewarded, and I know of a score of places as yet untouched, where the digger will surely find many ceramic treasures.

It is generally conceded that the most ancient of this ware is of the coiled or indented varieties, and, while not so beautiful as the later decorated ware, good coiled ware is as highly esteemed and perhaps more eagerly sought after by some collectors.

It would scarcely seem possible that this coil could be made to contribute to the natural desire for ornamentation, which, early in the art, asserted itself, and yet such was the case. In one form of ancient pottery that has been discovered the coil is made to alternate with a plain surface. Again, to have a ribbed-like appearance, and later the thumb was pressed into the soft clay as each coil was placed upon its predecessor, and perceptible indentations made. This style once introduced, soon led to others, and wave-like indentations were produced, rude geometrical designs suggested by pressing the edge of a sharpened blade of wood or stone into the soft clay.

Then followed incised lines, and applied fillets, and when once relief ornamentation began, the quickening intelligence of the potter led to a speedy growth in this style of decoration. Coils representing worms were pressed on the sides of the completed vessels; acorns, nuts, seeds of all kinds, acorn cups, imitations of the human nipple, the wriggling snake, its ugly head, and a thousand and one natural objects were used.

Of the smooth undecorated ware little need be said, except that it is generally of the finest materials and of exceeding smooth surface. The first decorations are of a simple character. They consist of mere spatterings of color on the outside and inside of the vessel. This color was undoubtedly taken into the mouth and thus spattered over the ware, just as the Hopi priests today color their masks, and the Chinese moisten the laundry they are about to iron.

But the choice ware is that which comes under Dr. Fewkes' third head. It is well here to note the fact that it is largely owing to the burial customs of the ancient aboriginal peoples that we have so many excellent specimens of their pottery handed down to our day. Wherever graves of any kind are found, there one is almost certain to find pottery.

Indeed, Dr. Fewkes speaks of nearly all the pottery he has found as "mortuary" pottery. The Hopi cemeteries were usually situated not far from the houses, "sometimes just outside the walls. While the dead were seldom carried far from the village, a sandy locality was generally chosen, and a grave excavated a few feet [illegible] Usually a few stones were pl[illegible] of the ground over th[illegible] protect the remains from [illegible]

The food bowl[illegible]

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HOPI POTTERY MAKER AT WORK.

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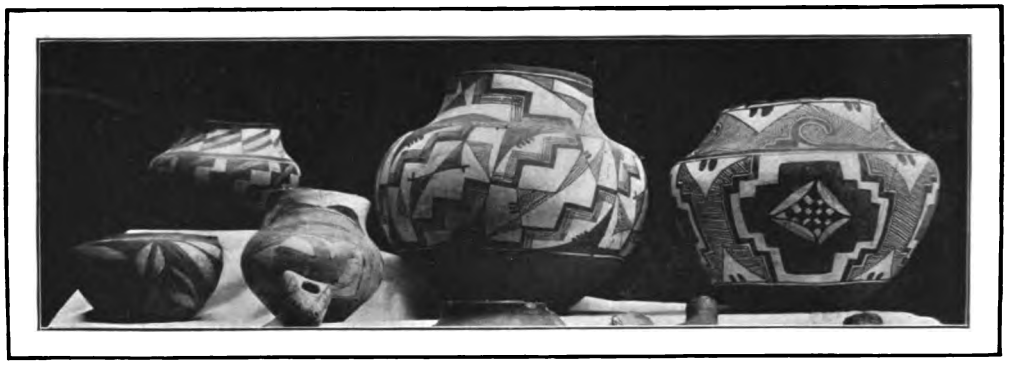

MODERN PUEBLO POTTERY.

common, and these are polished, inside and out, to a fine gloss, and then beautifully decorated, generally only on the inside, though some bowls have exterior adornment. They are generally hemispherical, gracefully rounded below, and seldom have flaring rims.

Whence came all these various vessels? Where was the motive for their origin? Were they simply made in imitation of some natural object, or did the maker consciously desire to manufacture something that would be pleasing to her?

To follow up this phase of the subject—the development of the artistic faculty—is most fascinating. It considers the various shapes of the vessels found and leads one to the inquiry whence and how were they obtained. We have bowls; wide and narrow-necked bottle-like vases; vases shaped like the heart of the deer and other animals; cups of an infinite variety of forms; mugs; handled vases shaped something like the human foot; dippers; globular vases; and hundreds of eccentric forms which seem to have had no other source of origin than in the fantastic thoughts of their creators. Then, cups and vases are found shaped like birds and animals—crude owls and ducks and horses and deer, but these are of far less interest than the bowls of more ordinary and useful shapes.

Cushing, Holmes and Fewkes have all written interestingly and instructively on this subject, and all practically agree that "turning to nature for possible originals, we find them liberally supplied by both the animal and the vegetable kingdoms." Shells from the sea, turtle shells, horns of cattle, gourd, and a thousand and one things of ıre suggested the earlier forms. Orig- ɜ once supplied, conventionalization would take place, and thus new forms be discovered. But by far the most fascinating portion of the field to me, is that which deals with the decorations of the various ware. On this subject Dr. Fewkes, the highest authority, thus writes: "One of the most important lessons drawn from the pottery is to be had from a study of the symbols used in its decoration, as indicative of current beliefs and practices when it was made. The ancient inhabitants of Sikyatki have left no written records, for, unlike the more cultured people of Central America, they had no codices; but they have left on their old mortuary pottery a large body of picture writings or paleography, which reveals many instructive phases of their former culture. The decipherment of these symbols is in part made possible by the aid of a knowledge of modern survivals, and when interpreted rightly they open a view of ancient Tusayan (Hopi) myths, and in some cases of prehistoric practices."

In his recent report (1896), Dr. Fewkes gives over seventy pages of text with forty-five full pages of explanatory illustrations devoted exclusively to this subject of decoration, hence it will be seen how merely cursory my remarks on the subject must be. He contends that symbolism rather than realism was the controlling element of archaic decoration. Thus, says he, while objects of beauty, like flowers and leaves, were rarely depicted, and human forms are most absurd caricatures, most careful attention was given to minute details of symbolism, or idealized animals unknown to the naturalist. Some of the human figures, however, are very interesting. They show that the peculiar whorls into which Hopi maidens fashion their hair are ancient.

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These represent the squash blossom, their emblem of maidenhood. Another seems to picture a man in the act of stick-swallowing. The Navahos, as well as the Pueblo Indians, practise this art, though in later years we know that the arrows and sticks are deceptive and are made for the purpose. Still others show the human hand, and the Hopi tell strange legends connecting this depicting of the human hand with the choice of their priests by the gods.

Elk, rabbits, mountain sheep and other animal clan devices are common. These possibly represent the supposititious animal progenitor of the family, which now goes under its particular name. Of reptiles, the great plumed serpent is the most important. The Hopi, as is now well known, in their snake dance, claim brotherhood, through their snake clan, with the snake, hence the frequency of this symbol as a decorative device.

As rain-making in such an arid region as that of the Hopi is a most important function of their Shamans, it might readily be supposed that water animals are most common as decorative symbols. Tadpoles, frogs, lizards, dragon-flies accordingly are often found, and butterflies, also, which the Hopi connect with well-watered crops. Birds and feather symbols, however, are by far the most common. Hopi myths and legends are full of references to great bird-like creatures of semi-deific power. Later legends refer to the Kwataka, or man eagle, who was a great source of distress to their ancients, and who was killed by the War God. Feathers, too, form an important part of their pahos, or prayer sticks, and perhaps to this fact their constant introduction into pottery decoration may be due. Of the geometric figures much might be written. A mere pictorial representation of them would be a surprise to most readers. Forms familiar and unfamiliar, curved and rectilinear, terraces, swastikas, crosses, parallels, zig-zags, serrates, obliques, diamonds, triangles, hour-glasses, quadrilaterals, ovals, rectangles, frets, in every possible combination, and twisted into every conceivable design, are found. Some of these may be seen on the modern vase (Fig. 1), made for me at Laguna, N. Mexico. This may be regarded merely as a suggestion of the thousand and one similar devices found on ancient and modern ware. From this brief survey, therefore, it will be realized that the ancient pottery decorator was not without skill or artistic motives, and also that her religious ideas were incorporated into the symbolism of her decorative devices. Of the uses to which pottery was and is put by the Amerind, I have scarce room here to speak. Suffice it to say that in pottery and basketry, with occasionally a gourd shell and a few stone and wood receptacles and domestic implements, the Amerind had to be content. These comprised his only utensils, hence we find them used in a large variety of ways.

ANCIENT POTTERY FROM THE NAVAHO RESERVATION.

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One would think that the European methods of manufacturing antiquities would not have reached as far as the Hopi pueblos, and yet Fig. 2 is a modern vase in my own collection, which many a collector would have purchased as ancient. It was made by Nampéo, at Hauo, on the East Mesa. She is not a true Hopi, but a member of the Tewa family, who founded the town of Hauo nearly a couple of centuries ago. She makes beautiful ware that more nearly approximates to the ancient ware than that of any other living pottery maker. Finding a better market for ancient than modern ware, she cleverly copies the old forms and their decorative designs. But there is an almost infallible sign by which modern pottery may be detected. Indeed, Dr. Fewkes says it is the sole way. This is by "the peculiar crackled or crazed surface which it always has. This is due, I believe, to the method of firing and the unequal contraction or expansion of the slip employed. All modern imitations are covered with a white slip which, after firing, becomes crackled, a characteristic unknown to ancient ware." The decorations of this large vase (Fig. 2) consist primarily of four masked figures called katchinas. These represent supernatural beings of an inferior order—lesser gods, as it were—and may belong to a species of ancestral worship. The Hopi have a large number of katchinas, many, perhaps all of them, being represented by small statuettes, which visitors to the Hopi pueblos commonly call dolls.

FIG. 1—LARGE LAGUNA VASE.

Of modern pottery the best that is now made among the Pueblo Indians is that of Zuni, in New Mexico. Large quantities are made at Acoma, the wonderful city of the cliffs, Laguna and the pueblos of the Rio Grande. The Hopis, as I have before said, still make pottery, but it is thick, heavy, crude in form and deficient in art workmanship in the decorations. The Pimas and Papajoes of Southern Arizona also make a crude pottery, mainly of red clay or red painted and decorated with crude lines and outlines in black. The Mohaves, who occupy the river banks and the desert that lies near to the shores of the Colorado River at the Needles, are also crude pottery makers. Their ware, however, is mainly sun dried and of clay that readily disintegrates, so that it has but passing value and interest.

Some time ago—a year or so—it was said that endeavors were being made to educate the Laguna Indians in the scientific and modern methods of preparing the clay, application of the colors and glazing, so that, while preserving all the essential features of its aboriginal character, it would be more durable and beautiful. Whether this laudable plan has been carried out or not I am at present unable to say, but I sincerely hope it will not be long before our Indian Department—which certainly shows itself both capable and desirous of truly helping the Amerind—will make these subjects matters of education in the Indian schools. It would not be a matter of serious expense to send pottery experts to every pottery-making tribe. There they could study the clay of the neighborhood and instruct the potters in those combinations which would would secure the best results. Thus the aboriginal character of the pottery will be preserved, with the added beauty, strength and durability which mod-

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ern scientific methods of working impart. In such manner we shall practically aid our Indian wards to be self-sustaining and governing in the larger sense, and at the same time advance them on the highway of civilization.

FIG. 2—LARGE KATCHINA VASE MADE BY NAMPEO.

ENGLISH AND AMERICAN RUGBY

By John Corbin

THE many striking differences between English and American Rugby arise out of the American features known as "possession of the ball" and "interference." In the early days of the American game many of the most sacred English traditions were unknown, and the wording of the English rules proved in practise so far from explicit that it was not possible to discover, much less to enforce them. One of these traditions favored a certain comparative mildness of demeanor. The American players, on the contrary, favored a campaign of personal assault for which the general rules of the English scrummage lent marked facilities. It soon became necessary in America to line the men up in loose order facing each other, and to forbid violent personal contact until the actual running with the ball should begin. This clearly made it necessary that the sides should in turn put the ball in play, and consequently should be given possession of it. Under this arrangement, each side is in turn organized on the offensive and the defensive; and the result is an elaborate and almost military organization. The upshot of all this was that the forwards, who in the parent English game have only an incidental connection with the running of the backs, become a part of each successive play, opening up the way for the progress of the ball. According to the English code, this made our forwards off-side, so that the rule had to be changed to fit the new practise. It then appeared that if the forwards could play ahead of the ball, the backs could too; and here you have the second great American feature, interference.

I know no better way of illustrating

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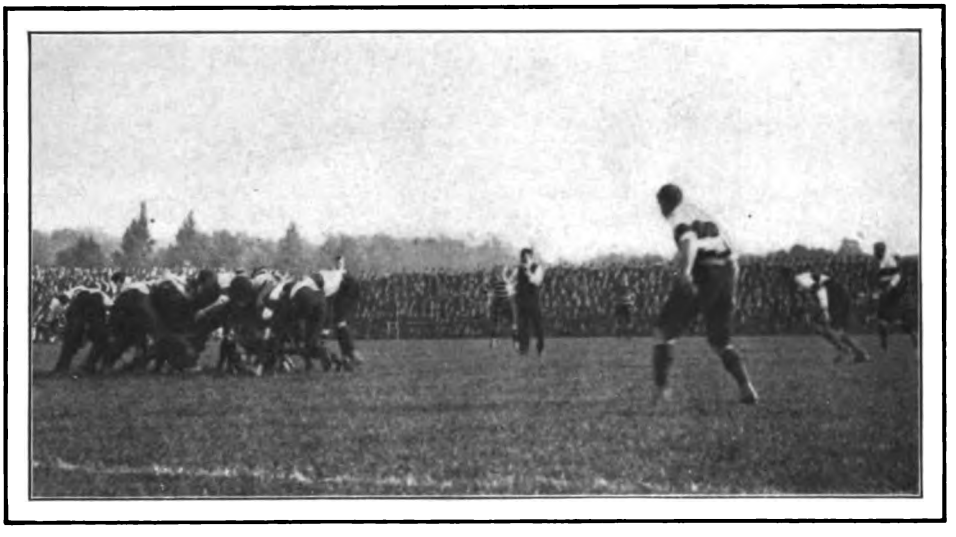
further the difference between the two games than by relating the experiences and sensations of an American who undertakes to play English Rugby; and as my only knowledge of this sort is the result of personal experience I fear I shall have to be allowed a liberal indulgence in the perpendicular pronoun.

During a college "wine" that ended the season of "tubbing" on the river the captain of the Balliol fifteen threw his arms about me, and asked me to play on the team. He had not a single three-quarters, he said, who could get out of his own way running. The proposition was startling enough, for I am no footballer; so I pleaded an attack of rheumatism and ignorance of the game. He said they didn't matter. "And I'm half blind," I added. "So am I," he interrupted, "but we'll both be all right in the morning." I said I referred to the fact that I was very near-sighted; but he took all excuses as a sign of resentment because he had failed to invite me to breakfast in my Freshman term; he appeared to think it his duty to breakfast all possible candidates. Such are the courtesies of an English captain, and such are the informalities of English training.

The next morning the captain wrote me that there was a match on against Merton, and asked me to come out a quarter of an hour before the rest for a little coaching. A quarter of an hour to learn to play football! In spite of the captain's predictions of the night before, I was not so sure that he was yet "all right;" so I went out to the porter's lodge and scanned the bulletin-board. My name stared me in the face. I had scarcely time to take luncheon and don a pair of football shorts.

The practise my coach gave me consisted in running the length of the field three or four times, passing the ball back and forth as we went. His instructions with regard to the game were equally simple. To keep in proper position I had only to watch my Merton *vis-a-vis* and take a place symmetrical with his. When the enemy heeled the ball out of the scrummage (scrimmage), shortened to "scrum," to their three-quarter back, putting us for the moment on the defensive, I was to watch my man, and, if the ball was passed to him, to tackle him. If he passed it before I could tackle him I was still to follow him, leaving the man who took the ball to be watched by my neighbor, in order that I might be on hand if my man received it again. An American back when his side is on the defensive is expected to keep his eye on his *vis-a-vis;* but his main duty is to follow the ball. An



THE THREE-QUARTER BACKS FACING IN PAIRS.

Only three of the four quarters of each side are visible and one of these shows only a head above the scrimmage. The attitude of the middle of the three in the foreground indicates that the ball is about to come out, apparently as the result of irregular play for the referee is blowing his whistle.

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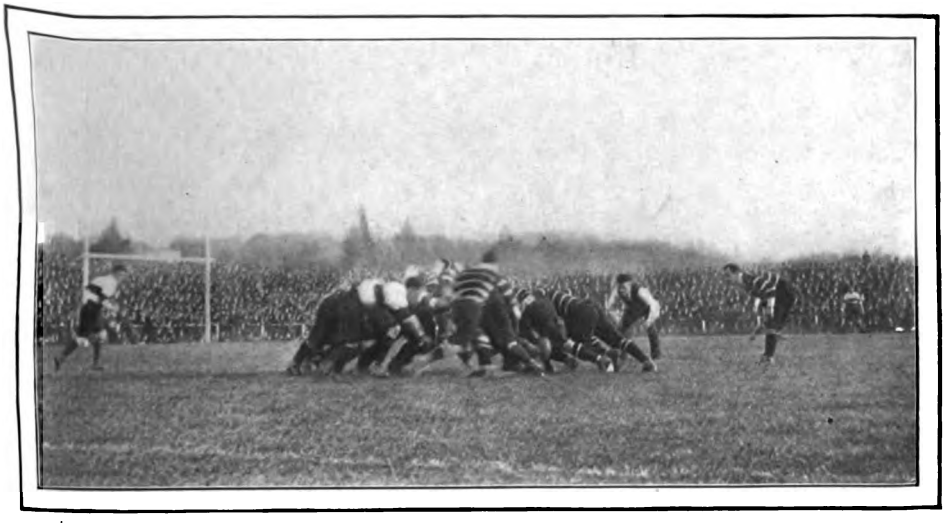
English back under similar circumstances is expected only to follow his man. If our side happened to heel out the ball from the scrum and one of our three-quarters began to run with it, we were on the offensive, and the other three-quarters and I were to follow at his heels, so that when he was about to be tackled—"collared," the English say—we might dodge our opposites so that he could pass it on to us. There is, of course, no such thing as combined interference among the backs. A player who gets between the man with the ball and the enemy's goal is rankly off-side. It is not to be understood that the captain coached all this information into me. I had to buttonhole him and pump it out word by word. Coaching of any sort is all but unknown on English football-fields. All there is of the game is learned at school—or in the nursery!

When the opposing teams scattered over the field for the kick-off I noticed with satisfaction that there was not a spectator on the grounds to embarrass me. It is so in almost all English college games—the fellows are more than likely to have sports of their own; and "anyway, what is the use in hanging round the fields where other fellows are having all the fun?"

On the kick-off, luckily, the ball did not come to my corner of the field, for I could scarcely have seen it, much less caught it. Our side returned the kick and the scrum formed. Our nine forwards gathered compactly in a semi-ellipse, bent their bodies together in a horizontal plane, with their heads carefully tucked beneath the mass, and leaned against the opposing mass of forwards, who were similarly placed. When the two scrums were thoroughly compacted, the umpire tossed the ball on the ground between the opposing sets of legs, whereupon both sides began to struggle.

The scrum in action looks like a huge tortoise with a score of legs at each end, which by some unaccountable freak of nature are struggling to walk in opposite directions. The sight was certainly awe-inspiring, and it was days before I realized that it indicated no abstrusely working tactics; there is little, if anything, in it beyond the obvious grunting and shoving.



WAITING FOR THE BALL.

One of the half-backs eagerly waiting for the ball which is being heeled out. The other half-back is in the act of pouncing on it to make the necessary pass.

The backs faced each other in pairs on that side of the scrum which afforded the broader field for running. The legs in the Balliol scrum pushed harder, and the bodies squirmed to more advantage, for our men had presently got the ball among their feet. They failed to hold it there, however, and it popped out into a half-back's hands. He passed it quickly to one of my companions at three-quarters, who dodged his man and ran toward the corner of the field. I followed, and just as the full-back collared him he passed the ball to me. Before I had taken three rheumatic strides I

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had two men hanging at my back; but when they brought me down the ball was just beyond the line. The audience arose as one man—to wit, the referee, a Balliol friend, who had been squatting on the side-lines—and shouted, "Played. Well played!" I had achieved universal fame. During the rest of the game the Balliol scrum, which was a very respectable affair of its kind, kept the ball to itself, while we backs cooled our heels.

A few days later, in a game against Jesus, the scrums were more evenly matched, and the ball was heeled out oftener. I soon found that my eyes were not sharp enough to follow quick passing; and when, just before half-time, a punt came in my direction, I was horrified to see it multiply until it looked like a flock of balloons. As luck had it, I singled out the wrong balloon to catch. Jesus fell on the ball just as it bounced over the goal-line. In the second half the captain put one of the forwards in my place, and put me in the scrum.

The play here was more lively, though scarcely more complex or difficult. Each forward stuck his head beneath the shoul- of the two men in front of him, grasped waists, and then heaved until, when the ball popped out of the scrum, the word came to dissolve. There were absolutely no regular positions; the man who was in the front center of one scrummage might be in the outskirts of the next. On some teams, I found by inquiry, a definite order is agreed on, but this is regarded as of doubtful advantage. Tactics and strategy, as we understand the words, are scarcely thought of, for they mainly depend on the possession of the ball and interference.

When the umpire or half-back tosses the ball into the middle of the scrummage there are, at an ultimate analysis, four things that can happen. First, the two sides may struggle back and forth, carrying the ball on the ground at their feet; this is called a "pack." Second, the stronger side may cleave the weaker, and run down the field, dribbling the ball yard by yard as they go until either side picks it up for a run, or else drops on it and cries "down." Third, one side may be able to "screw the scrum," a manœuver which almost rises to the altitude of a play. The captain shouts "Right!" or perhaps "Left!" and then his forwards push diagonally, instead of directly, against their opponents. The result is very like what we used to call in

THROWING IN THE BALL FOR A LINE OUT.

The team in striped shirts is Leicester, the best of its year (1900) in England. The team with the black band is Devonport Albion, the champion of the west of England.

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America a revolving wedge, except that, since the ball is carried on the ground, the play eventuates, when successful, in a scattering rush of forwards down the field, dribbling the ball at their feet, just as when the scrum has been cloven. The fourth possibility is that the side that gets the ball amongst its eighteen legs allows it to ooze out behind, or, if its backs are worthy of confidence, purposely heels it out. Thereupon results the play I have already described; a half-back pounces upon it and passes it deftly to the three-quarters, who run with it down the field, if necessary passing it back and forth. In plays which involve passing or dribbling, English teams sometimes reach a very high degree of skill; few sights on the football field are more inspiring than to see a "combination" of players rush in open formation among their opponents, shifting the ball from one to another with such rapidity and accuracy as to elude all attempts to arrest it. As a whole, the game of the forwards is much more fun than that of the backs, though decidedly less attractive in the eyes of the spectators—a consideration of slight importance on an English field.

Just as I began to get warmed to my new work I smashed my nose against the head of a Balliol man who was dodging back into the push. The captain told me that I need not finish the game, but as it is against the English rules ever to substitute players, and we were still far from sure of winning, I kept to my grunting and shoving. At the end of the game the captain very politely "gave me the hoof." This was just what I expected and deserved; but I was surprised to find that the fellows had objected to my playing the game through with a bloody nose. They would have preferred not to be bled upon.

This regard for pleasantness and convenience, which to an American is odd enough, is characteristic even of 'varsity football. The slenderness of the preliminary training of a 'varsity fifteen is incredible to any American who has not witnessed it. To sift the candidates there is a Freshman match and a Senior match, with perhaps one or two "squashes"—that is to say, informal games—besides. And even these tests are largely a matter of form. Men are selected chiefly on their public school reputations, and in consequence of good work on a college fifteen. The process of manufacturing players, so familiar to us, is unknown. There is no coaching of any kind, as we understand the word. When a man has learned the game at his public school or in his college, he has learned it for all time, though he will, of course, improve by playing for the university. The need of practice is greatly lessened by the fact that the soft English winter allows as long a season of play as is desired. The team plays a game or two a week against the great club teams of England—Blackheath, Richmond, London, Scottish, Cardiff, Newport and Huddersfield—with perhaps a bit of informal kicking and punting between times. When the weather is too bad it lays off entirely.

All this does not conduce to the strenuousness of spirit Americans throw into their sports. In an inter-varsity match I saw the Oxford team, which was fifty per cent. better, allow itself to be shoved all over the field, and kept the game a tie only by the rarest good fortune. It transpired later that the gayeties of Brighton whither the team had gone to put the finishing touches on its training, had been too much for it. In an American university such laxity would be thought the lowest depth of unmanliness; but I could not see that anyone at Oxford really resented it—at most it was a subject for mild sarcasm. "You can't expect a team to be in the push everywhere!" This lack of thorough preparation is even more characteristic of the international teams—England, Ireland, Scotland and Wales—that yearly play for the championship of Great Britain. They are chosen from the most brilliant players in the leading clubs, and local jealousy makes the task of choosing most delicate. The temptation is to take a man or two impartially from each of the great fifteens, instead of choosing the best men, or the men most likely to play well together. As the international teams take little or no practice as a whole, the tendency in the great games is to neglect the finer arts of dribbling and passing in combination—for excellence in which the players were severally chosen—and to revert to the primitive grunting and shoving. In the great games, accordingly, the team which is man for man inferior as regards the fine points may prevail by sheer strength, so that the result is liable to be most unsatisfactory. Some years ago, owing to

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local club jealousy, the Welsh international was chosen mainly from a single club, with the result that it won the championship, and in 1901 the canny Scotch team won by intentionally selecting its members, in spite of local jealousy, on the score of their familiarity with one another's play.

As might be expected from this lack of keenness, the very rules of the game are calculated to moderate the struggle. As a result of the rule against substituting, to which I have referred, any extreme of hard play in the practice games, such as lays off dozens of good American players yearly, is not likely to be encouraged. Good men do "crock" as they call it; but where an injury is practically certain to disqualify a man from the inter-varsity match, the football limp and the football patch can scarcely be regarded as the final grace of athletic manhood. Wilful brutality is all but unknown; the seriousness of being disqualified abets the normal English inclination to play the game like a person of sense and good feeling. The physical effect of the sport is to make men erect, lithe and sound. And the effect on the nervous system is similar. The worried, drawn features of the American player on the eve of a great contest are unknown. An Englishman could not understand how it has happened that American players have been given sulphonal during the last nights of training. English Rugby is first of all a sport, an exercise that brings manly powers into play.

That our American game is past hoping for on the score of playability is by no means certain. The historical critics of literature are fond of saying, that a period of rapid development is always marked by flagrant excesses, and the development of modern American football has been of astonishing rapidity. Quite often the game of one season has been radically different from the games of all preceding seasons. This cannot continue always for the number of possible variations is obviously limited; and when the limit is reached American Rugby will be like English Rugby, the same old game year in and year out. Everybody, from the youngest prep. to the oldest grad., will know it and love it.

The two of the features in which our football differs from the English, "possession of the ball" and "interference," are both occasion of considerable vigorous handling of one's opponents. When an American player is tackled, he seldom dares to pass the ball for fear of losing possession of it, so that our rule is to tackle low and hard, in order to stop the ball sharp, and if possible jar it out of the runner's grasp. In England it is still fair play to grab a man by the ankle. This is partly because of the softness of the moist, thick English turf, but more largely because, as passing is the rule, the tackler in nine cases out of ten aims at the ball. The result is that a man is seldom slammed to the earth as he would be in our game. It is this fact that enables the English player to go bare-kneed.

The danger from interference in the American game is also considerable. When a man is blocked off he is liable to be thrown violently upon the far-from-tender bosom of our November Mother-earth. Any one familiar with the practice of an American eleven will remember the constant cry of the coaches, "Knock your man on the ground! Put him out of the play!" It has been truly enough said that the American game has exaggerated the most dangerous features of the two English games—the tackling of English Rugby and the "charging" or body-checking of the Association game.

Yet this is only a partial statement of the case. These elements of possession of the ball and interference have raised our game incalculably above the English game as a martial contest. Whereas English Rugby has as yet advanced very little beyond its first principles of grunting and shoving, the American game has always been supreme as a school and a test of courage; and it has always tended, albeit with some excesses, toward an incomparably high degree of skill and strategy. Since American football is still in a state of transition, it is only fair to judge the two games by the norm to which they are separately tending. The Englishman has on the whole subordinated the elements of skill in combination to the pleasantness of the sport, while the American has somewhat sacrificed the playability of the game to his insatiate struggle for success and his inexhaustible ingenuity in achieving it. More than any other sport, Rugby football indicates the divergent lines along which the two nations are developing. By preferring either game a man expresses his preference for one side of the Atlantic over the other.

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THE ROAD TO CAMP

By Fayette Durlin

THERE is a certain quiet spot in the far away northern pines; one of those fair garden plots which the Maker of the Forests designed, long years ago, and planted in an hidden place where it could bloom for a season for His glory alone, undisturbed by the desecrating hand of man. To this lovely spot—this lost bit of Eden—if ye be minded to follow so unworthy a guide, it will now be my pleasant joy to lead thee.

The roadway leading to this garden plot is a winding road, of course. Only the thoroughfares constructed by money-getting man run in straight lines, and turn, when they needs must do so, in angles. The roads in forest or country are never in a hurry to reach their destination. They turn aside at the slightest pretext in an easy, natural manner, lengthening out the journey to suit their own convenience, like a reluctant boy loitering on his way to school. Thus it is with the road to camp along whose winding ways I would now stroll with you to its end.

The road now begins where the makers thereof decreed that it should end; to wit, on the shores of a dreaming forest lake. You paddle your canoe across the rippling waters, past the small wooded island at the head of the bay and into the miniature lagoon, where the lumbermen once built their rafts of logs, and with a skilful turn of the blade bring the frail bark alongside the half sunken trunk of a fallen cedar tree. This is the landing place; this is the commencement of the road to camp. A few steps and you are treading on a soft, thick carpet of moss, and then the hemlocks welcome you beneath their shade, and the tall pines await you farther on. If you have the eye of an artist, you will pause enraptured with the beauty of the scene; or if your "soul is moved with concord of sweet sounds," you will bend with listening ear to catch the wondrous strains of that never-ending symphony of the forest that comes to you, borne upon the air in low murmuring, gently subdued tones—the music of the pines.

And now the old roadway will beckon to you mysteriously, yet invitingly, and you will follow where it leads and enter the forest; and as the many fragrant odors come wafted to you and the great stillness envelopes you, a feeling of peace and restfulness will steal over you, and the cares of the world will flit away to be forgotten, for they dare not enter here.

The road has lost its original well-defined outlines and the forest has encroached all along its borders. Here and there it turns aside to pass around some fallen king of the realm—some tree of mighty girth—in a narrow footpath, or to make a wide detour around an impassable windfall that obstructs the way; and in places it has lost itself altogether, for a short distance, in some thicket of young spruce or stunted jack pine, and has to start all afresh on the other side.

It is man's way to overcome opposition of any kind by force. Nature avoids obstructions. It is only foolish man who would outstrip her in the race; who has removed himself far from her wise teachings and turned his back upon her in the lofty superiority of his ignorance; he alone it is who rushes toward the goal of his ambitions in such reckless haste, trampling down everything in his path in his insatiable greed for gain. But Nature is never in a hurry. With her, as with ourselves, to-day was once to-morrow, and to-morrow will soon be yesterday, so what matter a day if it be wisely spent?

The tiniest rivulet or the mightiest river always follows a winding, devious course. If man, the commercial-minded man of to-day, could arrange things, every river would flow in a straight line. With him each day represents so many hours in which to add something to his hoard of gold.

Would it not be wiser if we occasionally stepped aside and followed the road that goes around, rather than exhaust ourselves in boldly surmounting every obstruction in our pathway, and toiling wearily up the steep hight of every rugged hill? Whichever road we pursue we have a common

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destination in view, a common goal called happiness, and it seems to me that the road that goes around—though, mayhap, by far the longer—will conduct us to our journey's end more safely and better fitted to enjoy our well-earned rest than that other rougher, though shorter road. At any rate it offers tempting inducements which I myself find it impossible to resist.

That is why I am in love with this road of which I write. It has wisely adapted itself to Nature's laws, and when an impeding obstacle presents itself, it turns aside gracefully and avoids the trouble. For this reason it is always furnishing surprises of one kind and another.

Perchance some old, majestic tree, having fulfilled its allotted time, has tottered to its fall and thrown itself prone across the way where it lies, undisturbed, awaiting the slow touch of decay. Its great roots, torn from their bed of soft clinging earth, where they have slept so long unmolested, wave their tendrils in the air protestingly, or still cling tenaciously to a bit of dried soil, refusing to acknowledge defeat after all these years of successful battle with the warring tempests. Here the road turns aside with due reverence, not presuming to dispute right of possession to this narrow strip of ground which marks the old tree's final resting-place. Here you never know what adventure may be in store for you on the other side of the mass of roots.

Treading softly on the bed of moss with which the road is carpeted, I once circled around such a tree and came face to face with a doe and her two fawns not ten paces away. We gazed at one another in mutual astonishment for fully seven seconds, and then—whisk! and away they went, like shadows in a dream. I came out of my trance in time to remember, too late, that I had a rifle in my hand. After the first feeling of chagrin had worn off, I was not sorry that I had allowed the beautiful creatures to escape, for I have never committed murder on this road to camp. Probably that is the chief reason why my conscience never troubles me, and why I feel at peace with all things when following its wandering course. Once (confession is good for the soul) I came near forgetting myself and breaking my proud record of bad deeds left undone. It was at the same tree where I had spared the lives of the deer, after they had made good their escape. This time it was a bear, and under the circumstances I think I should have been justified in spilling his blood. All that deterred me was the lack of a weapon with which to execute the deed—and the bear.

I rounded the fallen tree, and just on the other side of the mass of tangled roots a big, black object suddenly rose, with an angry snarl, almost within reach of my hand and reared itself to an enormous hight, seemingly thirty feet or more. There it stood, towering above me, ready for battle—ready to extinguish my flame of life in a single, all-powerful hug. One glance was sufficient; one wild yell was all that I had time to utter, and I turned and fled from destruction. I do not come of a running family, but I established a record that day. And the bear could run, too. It has never been decided, though, which of us won the race, because we were running in opposite directions. It was a close call for both of us, and now whenever I approach that particular tree I either whistle or sing a glad song so as to give any creature that may happen to be on the other side, time to escape. I have no desire to break my own records, and in this way one avoids all complications.

These are the only exciting experiences the road ever furnished for my benefit. Its chief charm lies in its freedom from all disturbing influences, and you unconsciously adapt yourself to its mood, as you follow where it leads, and give yourself up to sober thought and meditation. A lazy porcupine may lumber along in front of you for a short distance, and then turn aside and throw his bristles up in a protecting shield as you pass by, but this scarcely engages your attention; a partridge may rise suddenly, almost at your feet, and cause a moment's flurry in your breast, but it is all the quieter after the noisy bird has flown; occasionally a faintly defined runway may cross the road, and you will pause and examine this highway of the deer for fresh tracks, and finding none, continue on your way unconcerned; or perchance another roadway, overgrown with brushes and brambles and half-obliterated by time, may branch off to one side, and out of curiosity you will follow it until it ends in a confused jumble of decaying, moss-covered logs and rotting stumps. These evidences of that former dire visitation will engender morbid thoughts in your breast, and you will re-

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trace your steps, sorry to have been thus brought into contact with that far distant, disagreeable past which Time and Nature are striving so hard to bury in oblivion.

And ever as you go, on all sides the pines and hemlocks rise tall and erect, stretching away in long lanes and dimly lighted avenues, where twilight always lingers, until you come to the belt of hard timber. Here the road merges into a narrow Indian trail and finally loses itself in a heavy thicket where you have no desire to follow.

This trail has not known the imprint of a moccasined foot for many, many moons. When the red man roamed these wilds it encircled the lake, following close to its shores, with many branches extending in all directions, but that was in the forest's golden days. Now no footprints disturb the soil on these dimly-outlined pathways save those of the timid deer. What a paradise this must once have been for the Indian. He was the lawful heir, the proud possessor of all this vast estate—these broad acres of forest trees and forest stream and forest lake. Now he is fast disappearing from off the face of the earth and the forests are disappearing with him. At times, while following the road to camp, you will come across one of the ancient landmarks, an aged monarch of the pines, standing a little aloof from the others in dignified exclusiveness. For the most part the pine trees left standing by the lumbermen were faulty in some respect, or of too young a growth, but occasionally one of the mighty ones escaped the axe of the woodcutter. Such a tree always reminds me of some old Indian chief, the last remnant of his tribe, who has seen his people dispersed and scattered at the coming of the white man, like dead leaves before the winter winds, and who now stands in mournful silence awaiting his own end.

Yes, both red man and forest tree are fast disappearing, and soon there will be nothing left of either. In place of the forest we will build cities of brick and stone and iron with not a crooked, winding street to be seen anywhere; in place of the red man wandering at his will through his lovely wilderness, proud and unafraid, or smoking the pipe of peace beside the council fire, we will have the slaves of Crœsus toiling for their daily bread behind their prison walls, without even a breath of free, pure air. This is some men's conception of the millennium.

There is a certain grove of aged pines and hemlocks, near the shores of the lake, through which the old road meanders with many a winding turn where we always pitch our camp. This grove retains all its pristine beauty, as it is not of sufficient importance, commercially, to invite destruction at the hand of man. This is the garden spot of which I have made mention; this is the Holy of Holies of the Temple. On one side it is hemmed in by a thick jungle of dead trees uprooted for the most part and lying about in wild disorder; an impregnable cedar swamp. The grove is safe from intrusion from this quarter. On the opposite side a low ridge extends unbrokenly for a mile or more, and just over the ridge the hemlocks and pines are bordered by a fringe of birch and young maples, with clumps of sumac interposed here and there, which ends at the water's edge.

In the winter the grove has its dark mantle of many shaded green trimmed with ermine. In the spring the trees lay aside their winter dress for robes of brighter color. The green mantle of the grove becomes greener, with a fringe of a brighter shade of the same and an hundred other different colors, and as the season advances to summer this light green takes on a deeper hue interwoven with the gleam of the sunlight on the white bark of the birches, and little touches of red from the sumac berries. But autumn is the time to see the picture in all its beauty. Then the forest puts on its gorgeous robes of state and glows resplendent in its fine apparel. There is a faint suggestion of blue in the green foliage of the grove, and it girds on a sash of rare beauty and wonderful richness of color. The birches and maples and sumac bushes blaze with many shades of gold and flaming red, through which the white bark of the trees gleams like so many bars of silver. Red and green, silver and gold, blended in lavish extravagance. Such a wealth of color beggars description. On still Indian summer days the whole picture is mirrored in the limpid waters of the lake. Then you can only gaze and gaze, and gaze again enraptured, and draw a long, deep breath, a sigh of perfect contentment, and thank God for having made His world so lovely to look upon and allowed you to dwell therein. The upper end of the grove is enclosed by an arm of the cedar swamp joining the lagoon where the road begins. The lower end gradually

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a part of the vast forest which stretches out interminably beyond.

Beneath the shade of these noble old trees the ground is covered with a thick carpet of green moss, or a soft layer of pine needles. Here and there clusters of jack pine and spruce relieve the monotony of the view, if monotony could be said to exist amid these restful scenes. The hardy wintergreen grows abundantly on all sides, its bright red berry shows brighter against the green background, and there is always the sound of the sighing of the winds overhead, and the air is always filled with the fragrant odors of spices.

"Is this, then, that fair Arcadia? The land of which the poets sing?" you will ask.

Ah! Is it not fairer than the fairest Arcadia? Is it not the land of our dreams?

In the center of this garden of rest, in a little open space just suited to the purpose, we are wont to spread our tent, even as the pilgrims of old were wont to spread theirs at the foot of some sacred shrine. The winding road passes close by our door, and we never think of choosing any other path in our goings and comings, for all roads lead to this one, and this is the road to camp. Like an old and tried friend, a faithful guide whom you have learned to trust, it is always there to make your journey easier, and to lead you aright. After a long day's tramp through the woods; after fighting your way over windfalls and through tangled thickets and swamps in your hunt for something to kill, when, as the day draws near its close, you finally turn your steps towards home, how unwelcome seems the prospect before you! So many of the same obstacles to be encountered again; so many of the same difficulties to be overcome. Accidentally you stumble upon an old trail, hardly discernible after many years of disuse, and follow it in the blind faith that it will lead to something better. Suddenly you emerge into a broader path, and soon objects begin to assume a familiar appearance and you realize, with a sigh of relief, that you are on the road that leads to camp. Immediately your wearied limbs take on new strength, and you strike out with renewed vigor, well knowing that you have only to follow this oft used pathway and it will conduct you to the haven where uld be—the grove and the cheerful the camp fire. There your com- is awaiting you, and a supper fit ed hunter is ready for you, and you can almost smell the venison and partridges, broiling over the coals, and the fresh browned biscuit and the rich aroma of steaming coffee. Just as the darkness is beginning to creep down upon the forest, and strange sounds to issue from the deepening shadows, the bright glimmer of a fire suddenly appears before you as you turn the last bend in the road and—you are home at last.

When your hunger has been appeased, and nothing but the fragments of the feast remain, the pipes are brought out and you prepare to enjoy a few quiet moments before seeking your couch of sweet smelling hemlock boughs where sleep is waiting for you with open arms. As the cloud of fragrant smoke from the soothing weed encircles your head you talk in low tones with the companion of your choice of the doings of the day and all those other things that children of the woods love to chat about; and then, when your weary eyelids begin to droop, and your tired head nods on your breast, you say good-night and "turn in."

Overhead you can hear the low moaning and soughing of the winds through the tall trees; faint night sounds come to you from the forest, and the great horned owl leaves his home in the dark cedar swamp and takes up his station in the big hemlock near the door of the tent, and serenades you with his mournful "Tw-whit, tw-whoo! Tw-whit, tw-whoo!" But these sounds gradually grow fainter and fainter until you finally sink into that deep, dreamless sleep which only the weary hunter knows. This is the haven to which the old road has safely conducted you; this is your journey's end.

The road to camp. It is a good road to follow and an easy one, for it always goes around. And so if you are tired out with the long wearisome journey; if your feet are blistered from climbing the steep hills; if your heart is heavy within you, and life seems all awry, step aside, O friend! O companion in misery! Leave the rough, hard beaten path! Come stroll with me along the smooth, moss-covered road to camp, "where the tall pines wave." And when we reach the grove, the beautiful land of our dreams, we will pitch our tent under the trees and there, in the deep forest shade, we shall find the blessed peace which the angels of God brought down to earth so many, many years ago.

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A CANINE INHERITANCE

By J. P. Mowbray

IT may not have occurred to you that a dog's nose is the most wonderful and persistent souvenir of his barbarism. It is through his nostrils and not through his eye that he is linked to the past. It is just possible that you think of a dog's nose as something wet and cold like a frog's back, and therefore to be set aside among the disagreeable things that we accept, but do not contemplate. What I have to say may therefore for this very reason be of some interest to you.

I select St. Bernard's nose as my study, because he has a Roman nose, not indeed in conformation, but, as dogs go, in function and patrician development. It is neither so acute nor so versatile as Sir Terre's nose, nor so retentive as Yeoman Beagle's, but if you will observe it carefully in its performances you cannot fail to see that with him as with all the family of *canidæ* it exercises a corrective and ultimate function not altogether unlike man's reflective power. Sharp as may be his other senses (and in Sir Terre, the aural sense often becomes so acute as to shorten his life), it is to the final decision of his nose that he refers all his perceptions.

If you keep a terrier in the house, as many suburban families do, merely as a burglar alarm, and he has his appointed place in the hall at night, you shall have noticed how the faintest vibration caused by the most stealthy footfall pricks his ears and puts him *en garde*. But he is often in doubt. Members of the family sometimes come home late and take good care not to make unnecessary noise. Footfalls are therefore not determinative. If you watch Sir Terre, you will see him jump from his bench and put his nose to the crack at the sill. He is endeavoring to obtain the authoritative sniff, and so conclusive is it that if the approaching person is a stranger, Sir Terre goes off like an alarm clock. You will observe the same discrimination in St. Bernard even in matters where you expect him to take your word for it. He prefers to accept the judgment of his nose. Thus you bring a stranger home with you and St. Bernard is presented with the rest of the family. But he is the only member of the family that has no conventional complaisance. He does not fully accept anybody on your guarantee. He may submit to polite regulations and tolerate him, but friendly recognition depends altogether on his one final test. He puts his head down at the first opportunity, takes one or two sniffs at the stranger's shoes or trousers and either admits the new comer into the co-fraternity of dogs with a fraternal wag, or he doesn't. And this decision is conclusive. So marked a characteristic is this of the whole canine family that it has given rise to several theories, especially in France, where the dog has so often been the victim of doctrinaires, one Frenchman writing a treatise to prove that every man has his own moral as well as physical effluvium, which Nature has furnished the dog with the sense to detect.

Mr. Darwin, whose observation of Nature is always interesting even when his deductions are questionable, traced the genesis of the multifarious dog as we know him to the two original progenitors, the wolf and the jackal, and he thought that the modifications were owing to some other animal, traces of which have been lost, and, like other naturalists, Darwin was puzzled over the innumerable variations that mark the *canidæ* of our day. But what he failed to notice was that the olfactory sense more than anything else is a common characteristic of the whole family and has persisted in spite of man's interference with and modification of the dog's other faculties. It is perhaps, more than any other, the function that still characterizes dog in all his varieties and points to his common origin. There can be no question now that Sir Lupis was his progenitor, and no one has shown more clearly than Geoffrey Saint Hillaire that the jackal is to this day dog, minus man's influence. In accepting this dictum of science we have to adjust our sensibilities to the obvious fact that the dog was originally a carrion-eating animal and belonged to the groups distinctly marked as scaven-

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gers. If that is not conclusive in his genesis, it is in his reversion. Wherever man has taken his hand off he has gone back to his first estate, as in Turkey, Persia and India, and the line of demarkation between the jackal and the pariah dog is lost.

We are chiefly interested at this moment in the persistence no less than the development of the olfactory sense which was originally a necessity of existence to the nomadic dog. It survives when his primitive appetites and habits are almost eradicated and civilization has completely changed his diet. That is to say, he preserves in that sense his original capacity, not only to detect but to enjoy carrion, even when his education does not permit him to eat it. We thus have a survival in varying degrees throughout the whole family of dogs of a primitive endowment, which, in its later manifestations, presents one of the most interesting studies that we can find anywhere, of an original aptitude, struggling with a superadded or artificially induced restraint.

Some one has said that heredity is the memory of the species. It must have been a Frenchman, for no one else can so easily turn a truth into a *mot*. In the dog's nose we shall find a constant reminder of his origin. It remains in all phases of his development a recollection of his carrion-eating days, just as his turning round before he lies down is a souvenir of his original lair. Man has modified his stomach and placed many restraints upon his gustatory impulses, but his olfactory sense remains in all his artificial conditions the ineradicable jackal endowment. We have succeeded in making a gentleman of him in many respects. St. Bernard under our manipulation has really arrived at something very like moral discrimination, and shows a well-bred suppression that is at times the highest possible tribute to man's mastership and influence. But he never quite rids himself of the temptation that comes through his nose, and it is his struggles, his relapses, his remorse, his sense of degradation when not strong enough to resist, that ally him more closely than anything else to our own weaknesses. his best estate St. Bernard, the of dogs, is a reformed animal, and formed man, there is always be- the attraction of the dissolute joys he has lost. St. Bernard is a member of my family. His dignity commands our respect. His conformity is admirable. And yet the jackal resides in his nose and makes itself manifest at odd times, and when it does and he is told by the women of the house that he is a "filthy beast" he exhibits some of the shame and contrition of a sentient being. At times airs from Araby cross his path. They are not spicy according to our notion. They are wandering and septic odors blown as if from some eastern wady where the vultures have gathered, and they bring to his nostrils seductive suggestions of primitive license and unrestrained gusto. I have caught him digging a putrid bone from a dung hill with a suddenly awakened zest, and when he was discovered he exhibited the shame of a bad boy caught *flagrante delicto*. How he arrived at the consciousness of wrongdoing in this natural proclivity, I am unable to determine. That it was evolved from himself is absurd, because the act from his point of view could not be wrongdoing. What he did was to accept man's point of view, drop his tail between his legs and, so far as demeanor could declare it, stood abashed, and all this without my reprimand.

It is not at all necessary to go off at a speculative tangent, as most of the popular writers on animals are just now in the habit of doing, and jump to the conclusion that instinct and reason differ only quantitatively and must eventually merge so that Sir Bayard will in time develop his taste to the point of distinguishing between a Saddle Rock and a Blue Point, and pick out a Corot from a group of Academicians. My own belief is that we hold the original propensities of the dog in leash. We can in the course of time modify his diet, reconstruct his palate, so to speak, but the original appetencies exist in abeyance, balanced by considerations that we have superinduced and that inevitably disappear when we remove our influence. It has been shown more than once that the hounds in a kennel prefer the tainted to the fresh meat, and this partiality is wholly unlike the gourmet at the dinner table who prefers the gamy to the fresh mutton, for in the latter case the taste is an artificial acquirement and in the former it is a natural endowment, and it ought to give the gourmet pause to think that in his

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own gustatory advancement he is not only elevating the dog, but is himself returning to the jackal.

In his place in the scheme of nature the dog has a stomach which is absolutely proof against any of the ptomaines, and cannot be poisoned by any of the cadaveric alkaloids. In his highest approximation to the human standard of taste he learns to eat delicate slop, fruit, vegetables and even confectionery. Some of the bloated toy dogs that have come under the gloved influence of woman are probably the most wonderful examples we have of esthetic degeneration. They one and all have to be carried to the veterinary regularly, when their viscera make protest against their acquired voluptuousness. But there is not a boudoir dog in society that in all his pampering ever quite emancipates himself from his nose. Widely separated as the pug, the greyhound, the collie, the terrier and the mastiff may be in their acquirements, it is certain that the fleeting odor of dead horse makes the whole canine world kin. It is true enough that the recognitions and manifestations will vary as do the artificial developments, but not one of the animals will be wholly able to resist the reminder of his nostrils. Those highly bred earth dogs with Celtic nerves and French topknots—wool on their flanks and cotton on their craniums—so like a Highlander in breeks and French feathers—are continually traversing aeriform trails that lead to a lost duty in the scheme of things. They cross vagrant odors that are like tangled threads woven by the winds to enmesh their instinct. Every decaying animal sends out a call to them, and so imperative is the olfactory sense that it often interferes with the sportsman and puzzles the breeder.

Not long ago a lady friend called my attention to her favorite greyhound, a magnificent household pet, as sleek and shiny as her best cob and as graceful as Diana. The dog's name, by the way, was Mignon, and you need not be told that she had been treated more like a flower than a brute. Mignon, I was told, was as dainty as a bird. She must have her kidney and tripe cooked to a turn and served upon a proper platter. She frequently topped off with paté or plum cake. She refused to associate with the canaille. Her consciousness of her decorative duties in life was remarkable. Whenever there was company in the house she was on exhibition and posed elegantly. But she had one extraordinary vice, and as near as I could get at it through the guarded explanation of a refined woman, it resulted in horror and dismay at unexpected moments, when Mignon made her entrance into the parlor, for she reeked with the odors of the Stygian pit and sent the company flying. On such occasions Mignon had to be led to the pond and scrubbed with whale oil soap and otherwise disinfected.

"What would I advise?"

With the robust sense of a man who has been much with dogs but never considered them of kin, I said: "Put Mignon outdoors in a kennel—throw her food on the ground, and in warm weather let her dig a hole in the earth and sleep in it."

That would never do. The poor thing would mourn herself to death. She was accustomed to sleep on a cushion in my lady's chamber.

To any one but my lady it would have been apparent that the dog's delinquencies were nothing more nor less than a protest of nature—very much like that of the small boy, who, when made to listen to the pastoral symphony of Beethoven, exhibits a strong inclination to carve his name with his jack knife on the piano. But the small boy not having the jackal's nose will outgrow these propensities.

Every American town not only has a board of health but a Gehenna. Somewhere just beyond the habitations there is a refuse heap, and sometimes it becomes the duty of the board of health to inspect and condemn it owing to the accumulation of decaying animal matter. About a week after my experience with Mignon this duty fell to me. I visited Gehenna and was surprised to find that the carcasses of animals were left there exposed. It was a forlorn spot about a mile and a half from the center of the town, and it was there that I encountered some of the village dogs. Several of them were sitting on their haunches on a ridge that partly enclosed the place, and they were looking down upon it in contemplative sadness, as if brought there by their noses and left undetermined. These were respectable dogs of several types, and among them I presently saw Mignon.

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It was not difficult to imagine that something like a human conflict was going on between duty and inclination. But for my part I saw only a conflict of what Romanes calls "percepts," and if all the dogs did not give way to their original impulses, it was because those impulses had become associated with man's punishment. It was very plain that in the case of Mignon her gustatory respectability prevented her from anything like the wild license that was shown by the pariah dogs. In her dilemma she compromised the matter by stealing down to a heap of refuse, rolling in it and then scuttling home. The other respectable canines were content to indulge in reminiscent sniffs—enjoying the interdicted show, one might say, from the back seats, and exhibiting a confusion of impulses so evenly balanced that the result was a sort of passive and guarded indulgence quite free from any volitions of their own.

I did not set out to point a moral, and can well avoid any psychologic conclusions to this sketch; but at the same time it may not be out of place to accept the dog's nose as a constant reminder that a dog is not and cannot be a human being, a consideration that will offend all the esthetes who are now translating animals into terms of human emotion.

IN VAN TASSEL'S CORRAL

STRANGE COMRADESHIP OF A "BUFFALO WOLF" AND A PRONG-HORN BUCK

By Franklin Welles Calkins

IN an old but refitted shack in Van Tassel's hay corral, and near its close-swung gate, I had comfortable division headquarters. By delay in construction, my section of the new railway line, cross-sectioned for the graders, was unoccupied for several months. There were thus a number of idle engineering forces along the line, and at our camp we spent the long, hot summer just lazing about. The hay corral, which served as a winter and wolf-tight pasture for colts, covered nearly two square miles of break and bottom, and was enclosed with a very formidable fence of eleven barbed wires, thickly studded with short cedar posts, and with ground-tight boards running the complete circuit at the bottom. Within this enclosure lay flat, low, hay lands; on either side the Running Water a second bench of sage brush and cacti, inhabited by prairie dogs; then a series of chalky cliffs, topped with a narrow stretch of summit ridge as level as a barn floor. Along the crest of the hights grew scattering umbrella pine, wind-blown, thick-topped and rugged, affording grateful shelter from fierce midday heat of a semi-arid on. To a certain aery upon these hights I carried my camp-made hammock of gunny sacks, and there, idling and reading, I spent many afternoons.

The only denizens of the corral were natives of the soil. There were numerous prairie dogs and jack rabbits, badgers, spermophiles or striped gophers, pocket gophers, snakes, owls, and, on the bottoms, kangaroo mice. I soon discovered that a single prong-horn buck was imprisoned within this high enclosure; at first a saucy, whistling, stamping fellow; but presently he accepted me as a neighbor, and paid little attention to my comings and goings. A little later, when I had formed quite a habit of climbing to the umbrella pines and lolling there, I discovered another four-footed occupant of a larger breed, and also a curious intimacy which proves that the lion and the lamb may sometimes lie down in company. The day was hot and the prong-buck, to get the benefit of a slight breeze, and some immunity from the flies, lay upon the point of a ridge some hundred and fifty yards away and a little below me. In that clear atmosphere the buck seemed even much nearer and, as I watched him lazily, he chewed contentedly at his cud, while cow birds hopped about him, pe

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at the flies. Then, in a curiously indefinite way, I became aware of another living and moving form upon the ridge—a stealthy creeper whose coat of neutral gray blended with the tints of the sere buffalo grass and the lead color of the cacti among which it crawled.

A close inspection discovered in this intruder the outlines of a huge gray wolf, which was apparently stalking the prong-horn. Much interested and excited I rose cautiously in my hammock to watch the drama. The wolf seemed a monster of its species, its body scarcely less in size than that of the apparently unconscious buck. From a humane point of view I should, of course, have shouted to scare the stalker off, but the fascination of the game took strong hold of my imagination. Here was something worth while in wild life—to watch the great buffalo wolf, scarcely second to the cougar in size and strength, and quite its equal in ferocity, in a struggle with game worthy of its wiles and its fighting ability. I had actual knowledge that the prong-horn is a bold, vigorous and skilful fighter, and has ordinarily little to fear from any beast that attacks it—that it seldom runs from the mountain lion or wolf, and never from the coyote. Nearer and nearer crawled the gray beast, worming its way inch by inch, until so close that it seemed the buck must be blind of one eye. Suddenly the wolf leaped in a lithe bound, not upon the prong-horn but over him, snapping right and left at a bevy of cow birds which had been pecking about the animal's legs! Unconcernedly the prong-horn chewed at its cud, and the wolf walked away to a little distance, lay down, stretched its legs and lolled contentedly. And there this oddly assorted pair rested in perfect amity until the wolf, cocking an eye, caught sight of my lightly swaying hammock, and trotted leisurely away to cover of the rocks.

Much interested in this curious occurrence, I questioned the cow-men that evening at Van Tassel's. I was assured that the prong-buck and the wolf were considered excellent friends, and had often been seen together. Both these animals, said the punchers, had in their building the corral been closed in unwittingly, and they had lived together now three years. Both wolf and antelope had doubtless tried at first to jump the fence and had received such punishment from its stinging wires that they had since avoided its lines of cedar posts as men avoid a pestilence. It is a well-established fact that no wolf, deer or antelope, having once failed in an attempt to scale a wire fence, will ever again approach it nearer than a stone's throw. At first the foreman at Van Tassel's had intended to shoot or poison the wolf in the hay corral, but as time passed, and the animal did not disturb the colts in winter, it was allowed to live. The immunity of the young stock was due, beyond doubt, to the fact that marmots, jack rabbits, cotton tails, and other small creatures, free from inroads of pestiferous coyote packs, throve and multiplied exceedingly. I have never anywhere seen jack rabbits so plentiful.

In subsequent visits to my aery I often saw the wolf, which finally came, like the prong-horn, to regard me as an inoffensive creature. On a number of occasions I saw the two together—quite frequently enough to make apparent that a kind of comradeship existed. They never appeared to take note of each other, yet there was in their atmosphere a certain something—the feel of acquaintanceship and amity. In the narrow line of breaks which was their midday retreat they were simply at home together. My comings and goings came to be practically unnoted by them. Only when I jumped one or both in climbing or descending one of the narrow rocky draws was there any movement of uneasiness.

Then the animals simply threw up their heads in a brief survey, which came to have the feel of recognition, and loped leisurely away. I soon began to consider myself a biped member in an odd group of mammal friends. I came to know intimately the markings of my four-footed neighbors and could, I am very certain, have singled either of them out in a large company of its fellows. The prong-buck was rather slight in build, more gazelle-like in appearance than the average of its kind. Its markings of white were a little narrow and uneven, its horns an inch or two short and tilted uncommonly far forward. I have no doubt this last peculiarity added something to its fighting qualities. The canine was simply a king dog wolf, such an one as would, at large, have been acknowledged leader of a winter pack. His weight could not have been less than that of the prong-buck. In color he was of a light gray, almost white upon the throat and belly. He had, notwithstanding his un-

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common size, the lithe, springy movement and the air of the young dog, and from these qualities I argued that he had been a mere pup, still haunting closely the home den, when the fence builders had shut him in. He was evidently well fed, for, early in July, he had shed his winter coat and presented a sleek, clean-limbed appearance.

It was not long before I saw him stalk and capture his favorite tid-bit, a fat marmot. This was no easy task but one requiring infinite caution and a cat-like patience. It is only in sunshine that the prairie dog sits outside or wanders from the hole in its tiny mound, and then, despite its saucy chippering yelp, it is an exceedingly watchful and wary creature. So near you may come and no nearer, seems to be its watchword—a pert flip of the stubby tail, an expert dive and then silence and security. The big wolf, perfectly understanding this habit, stole toward a group of hillocks, from out the cover of a draw, and with more than an Indian's caution. He seemed scarcely to move, crawling flat upon his belly, and taking advantage of every small sage clump or spray of cactus which could cover, even partially, his advance. He often stopped stone still and lay for minutes without so much as wiggling an ear. He was a half hour going fifty yards, and when, at last, he had reached the nearer mounds I knew he had failed for every bobbing little speck upon the earth heaps suddenly disappeared. I thought he would return discouraged but no, he arose and looked about cautiously, then trotted to a sprawling cluster of sage bush and vanished as by magic. I watched until my eyes ached, and after a long time, the little gray figures reappeared, sitting bolt upright and peering with alert eyes until satisfied their coast was clear. For a still longer time the tiny fellows kept close to their mounds continually bobbing up to watch. Then an incautious one got within reach; there was a lightning-like pounce out from cover and the wolf snapped up the luckless one and lugged it away to his lair.

About the first of August the peace of the corral was rudely broken in upon by the coming of Alexander, our assistant chief engineer, a hardy, blustering and conceited Scot, who drove his grays in at the corral gate with his usual grand flourish and volley ders. He was accompanied by six g, long-legged hounds as noisy and unwelcome as himself. Fortunately for the temper of my idle force, the man drove off early next morning for a hurried trip up the line, but, much to my disgust, he left his bellowing, nosing pack behind. As soon as he was out of sight I took ropes and stakes and picketed the dogs out safely at some distance from the shack. Yet, about four o'clock that afternoon, as I lay reading in my hammock, there broke out upon the flat a blatant yammering of hounds and I looked down to see the whole pack, in full cry, in chase of my prong-horn buck. One of the boys had sighted the antelope and thoughtlessly turned the dogs loose to see some fun. I was vexed enough but at first had no fear for the buck, for I had never known Alexander's dogs to lay tooth to any creature swifter than a molly cotton-tail.

As I watched the race, however, from my perfect point of vantage, I soon saw that inside the hay corral, big as it was, the dogs were running at tremendous advantage. Great as was the prong-buck's fear of the hounds, his fear of the deadly wires was greater. At first he ran straight at the western line of fence and, for a moment, I thought he would make an attempt to leap it and I watched with my heart in my mouth until, at fifty feet or less, he veered in a flash and ran alongside. He had gained upon the pack at every jump until the turn when they lined his course finely cutting its angle in a way to win a surveyor's admiration. The leader fell but a rod or two short of the buck's heels as they came on behind. Up the breaks they went, the prong-horn stretching away again in splendid leaps. At the northwest corner of the corral he was again turned and again the hounds cut the angle of his course and this time the pack's two leaders came in ahead. The buck's escape was narrow; a mighty jump carried him high over the head of the foremost hound but the second, springing at his neck, missed apparently by a hair's breadth. And now the chase came straight toward my perch. The buck passed within fifty feet sailing down the breaks like some great white and yellow bird. I ran in front of the hounds, shouting at them to come off and flourishing my walking stick but I would better have saved my breath. They tumbled past bellowing like mad things and the chase hurtled down the breaks and across the flat below.

As the buck lunged across a low ridge

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upon my left, a gray streak shot out from cover of rocks, across his heels. It was the big wolf going like the wind. He passed directly under the noses of the foremost hounds. He looked saucily over his shoulder as though daring the pack to come on. Its two leaders slowed up, hair on end, and the prong-horn dropped into a draw and out of sight. Then seeing only the great wolf, halting his pace temptingly upon the ridge, the hounds bowled after him in a fresh and savage outcry. I threw up my hat and cheered and ran to a nearer point of vantage. The wolf's plain dare could not be misinterpreted. He had been listening to those dogs and watching the chase and, when the opportunity came, he had run boldly in to draw off the pack. After the first lightning dash he purposely slackened his pace and as plainly watched, with critical eye, the advance of the bellowing dogs. He could easily have outstripped them but disdained to run. At the foot of the breaks some two hundred yards below me he allowed the foremost hound to overhaul him. And then I saw a sight!

The big wolf now plainly showed his hand, or rather his teeth. He sprang sidewise as the hound leaped at him and fastened his teeth behind the animal's ear with a snap of electric quickness. Then with mighty, backward wrenches he jerked that howling dog after him until his keen fangs had cut their way through skin and muscle and left a gaping wound. This effective and expeditious handling took the sand out of the pack's leader who stood back and yelped with pain as the other five bowled in, one after another, and flung themselves at the quarry. Numbers made them fearless and, had they been fresh, the issue could scarce have remained long in doubt. Not for an instant did the great *lupus* waver or shrink from their fierce attack. He leaped among and over the dogs in big, lithe bounds, cutting their skins with his keen teeth, snapping right and left with an energy which, as I ran closer in, made his white fangs seem to show on all sides at once.

Looking down upon the leaping canines, at the distance of a hundred yards, I could see distinctly every movement in this exciting fight, and I could hear plainly the click of the big wolf's teeth when he missed the skin of a dog. The wolf's activity was something tremendous, and yet he fought warily keeping outside every combined rush of the dogs. For fully five minutes the hounds rushed him, pluckily striving to fasten upon the lightning leaper and to bear him down. The fight swung, in a half circle, out upon the flat and then back upon the slope still nearer to my position. Plainly the hounds were tiring. All of them were cut and bloody. The wolf's jaws were literally red with gore. His activity never for an instant slackened, nor his wary watchfulness. And now, with rhythmic like precision, one after another of the hounds was snapped and, with a fierce muscular jerk, thrown rolling and sometimes end over end. Presently, when the hounds were fagging and seeking more to avoid his jaws than to fasten upon him, the wolf caught a big, woolly half-breed by the throat and sprang away, threshing the strangling brute upon the ground, and shaking the life out of it as I had seen him shake to death a tough but helpless marmot. This exhibition proved too much for their waning courage and joining helpless yelps with their leader the remainder of the pack, with tails drooping, fled away toward the shack.

With a final, fierce lunge the great wolf jammed his victim upon the ground and finished the kill. Then, with either forefoot, as if quite disdaining the taste of dog, he cleaned his jaws of hair, and loped away among the breaks. My cheers accelerated his pace, and I could not refrain. I shouted until I was hoarse. By his own instinct, and in his animal way, that bold gray wolf had done a noble and heroic thing. He had thrown himself into the breach to save his friend and he had fought as a brave man fights, with skill and judgment, and like a Trojan. In justice to Alexander I must add that when he returned an hour or two later, and had heard my story, he nursed his wounded hounds and did not let the sun go down upon his wrath.

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THE DAY HE MADE THE 'VARSITY ELEVEN

By Edward B. Bloss

IT was a bright afternoon and an early day of the football season, the grass a fading green, as yet little worn by the shoes and bodies of the players, and the ground still warm from the summer. In an area of about one-third the field the candidates practised catching and passing; all sorts of them, from the wiry schoolboy to the collegian almost a man, dressed in their togs of many colors, alert, energetic, ready for anything in the rough game to which they offered themselves.

Among them was the new man—no ordinary one. He had come from his academy with a record, with a good chance sooner or later of getting on the 'varsity, quick and stocky, bright-eyed, shouting and laughing as he stood with the others in the ever-shifting circle, breathing the fresh air with a relish. He seemed more than willing, and he did his part as if he meant it. He was waiting his call. To some no trial would ever come, but they were hopeful, anxious for it, while often their glances wandered where their hearts were—the elevens advancing or retreating over the lines down by the further goal.

"That will do for you."

All heard the words, and all but one understood them; but the ball just then rolled in the direction of the new man, and he was after and on it like a flash. He only vaguely knew that the captain had got rid of a player and was among the candidates looking for another, though he did not catch his name till several cried out to him to hurry. His time had come. He threw off his sweater, his face grew serious and determined, and taking a deep breath he ran after the captain, from among those who followed him with interest and curiosity or perhaps a bit of envy, yet with cordial "wish you lucks," to where the puffing men were making a great thing of their moment's respite.

"This side—tackle."

It was a position he had never trained for, but the thought of that or any want of experience there did not trouble him. From the farm he had brought a constitution that would not easily let him fail. He remembered he had not spared his strength till he made the football team at school, his Senior year, when the contest with the rival academy had not taken place, and there had been nothing definite to compare himself with, nothing except work to recompense him for the disappointment. It had been necessary to aim higher, so that he had kept on working, adding to his brawn. When he received his diploma no one in his class was as powerful as he, yet he continued to train. That last summer at home had rounded off the rough edges, and he had entered Harvard with a fixed ambition and a wonderful physique. So here at the commencement was his chance. It almost made him smile to know he had been thinking of hardly anything that day except this very moment; yet it had half taken him unawares. He must be equal to it now, and every muscle tingled to start in, every cell in his brain called into play.

There was not long to wait. Center on the second eleven snapped the ball, the rush directed straight at the new man, and if it did not knock the feet from under him it startled him with its force and vehemence and swiftness. It was no longer schoolboy practice. He must use his full strength, agility, the most latent faculty of mind, everything.

The next rush also made at him, but intense and stimulated, he broke through the line and caught the runner; so with the third play, and as he threw the man for a loss the signaling in his direction ceased for a while. He was now fairly in the game and commenced noticing with a clearer eye—the opposite side always with the ball in order to shake the first eleven together, the desperate struggle with its trials and chagrins, the various situations which the close quarters made apparent to him and which the spectators only vaguely apprehended. There were the more or less open exchange of manly courtesies, the quickness of the formations, the heavy breathing, the surprising quietness about it all, the method and splendid system. Figures passed and

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dove and circled him, figures with torn suits and stockings and bursting shoes, tumbling and staggering, reaching frantically. Especially he saw the faces—tired and pained, never surrendering the purpose to resist or help; then eyes that seemed to reflect disaster, eyes that were cruel and exultant. It was all so fine, magnificent, the best thing he had ever known.

He grew somewhat accustomed to his place. It was not so hard now for him to do it, and he knew he was doing it, but he felt none the less eager, wanting to do more. When the player opposite him twisted his ankle it astonished him to find he was the tackle who had been well known in the line the year before, and the new man recalled that, as he went into the game a short time since, he had not even looked to see who it was against him. A cheer arose from the benches. He did not raise his eyes—would not do it, and this amounted almost to a superstition. His friends would be there, for they had come over with him; but he must not try to make out any of their faces, must not glory in himself. He was only out there on the field trying, trying for the 'varsity.

Next it seemed as if some of the players missed in order to let him have the credit of making the tackle. It was not easy to believe his strength was what it was, yet by degrees he thought he understood the cause. There could have been no better preparation than the country, and for the rocks he used to roll out of the pasture and all those trees he had hitched the oxen to, and dragged up the hill and split for the fence round the meadow, he could only feel glad as for something that had done him so much good.

He realized presently the ball had got into his hands and he had gained five yards. There was a cheer, the end of which sounded like his name. That could not be possible. His name would sound rather strange after nine 'rahs, and as well as he could he put his mind on matters less immoderate. He kept blocking and tackling, tackling and blocking. He was getting through, getting through—something that had lived in his dreams all summer, longer than that, as long as he remembered about football. And down in his heart he experienced a relief, for the strain of waiting had passed in a whirlwind. Still he would not look up into the grand-stand.

Now for the second time the quarter-back had come around as if to take the new man's measure. That only added to his caution among those cautious players. But the captain seemed always turned away, till at last as the day's acquisition to the team wormed himself out of a pyramid, minus part of his shirt from an extraordinary tackle, he ran over and patted him on the back. And he had something to ask him.

"Show me how you do it! How do you manage to break through like that?"

"I don't know."

He had thought for a second before he answered. The two resting teams regarded him with wonder.

"What! You don't know? Of course you do. Just tell me how you keep getting through the line!"

He could not explain, but he would show the captain—and as he arose to his feet a moment afterwards the latter congratulated himself for getting off so easily. It was the machinery in the other's arms and chest; they were accountable for his work.

When the elevens toed the mark again the tackle, who had been through a Yale game, changed his position to the opposing side. In a sense all dreaded this one, grimmer than the rest, brutal when he had to be. He would handle the new man, had been aching for the chance, and he laughed as on the first rush he blocked and held him fast. It was different a minute later, for the runner was downed before he ever started with the ball; some one's courage must be tested. One might stand in the line as firmly as a tripod, move as resistless as an engine, and in spite of that his heart might not be right. Again the new man stopped the play, but as he passed the other stepped away and struck him. The new man tackled then came back with his chin in his fists.

"Don't do that again. Do you hear? Don't try it again."

He spoke quietly, and when the man who had been through a Yale game received the ball for a run he felt himself in an embrace that checked him utterly and brought him hard to the ground. That was all. The new man was there for football, not to r enraged; to be content to catch the pl clean and low. He felt if he could pr over the best of them without sens violence that w wanted it.

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Time was called. Along with the tired teams he picked up his sweater and set off on a jog for the Carey Building, past the fast-emptying grand-stand that stood on his left with a thrilling picturesqueness, through the narrow gate and across the worn lane, till he found himself where he had never been before. He was there at last, inside of it—the place especially for the athletes of the university. The idea overjoyed him. In a twinkling he opened the locker they directed him to, and while he stripped they went after his street clothes to Hemenway Gymnasium. He was the first into the shower, wild to get into it, wild to get through, then out and drying himself, then hardly dried but very happy, with heart beating indescribably, returning to his locker. But before he could dress the rubbers were after him, and he had to take everything off, while they began to go over him, slapping his muscles and kneading them, sprinkling on the alcohol till his brown skin glowed again, talking to him all the time.

Meanwhile others dropped in from the showers, some lame and hobbling, with strains and sprains and bruises, half wrapped in their long towels and waiting their turn. There was the fellow he had supplanted in the line that afternoon, one of his shoulders painted with iodine and a bandage round an ankle. He wanted to say a word to this one, who, however, only looked into the room and left without having his rub. Then others dropped in, those who seemed to have some authority or certain privileges, and they called him by his first name and said a great many things. He supposed they knew what they were talking about—he hardly understood. And perhaps it was quite right, but it all puzzled him.

He turned around to get rid of it. There it was once more, only another feature. For behind the iron gratings of the windows, almost lost in the gathering dusk, he saw visages—small, nervous, darting, changing, reappearing; the town boys, the little hangers-on, with a faculty of passing on the word that a new man had been tried and not found wanting. They made him still more ill-at-ease, and it did not end with that. The fellows who worked up the news of the university for the Boston papers now beset him. He would need some introductory statement; they would publish anything he had to say. He tried to put them off. It was all ridiculous; they took the fun out of the whole afternoon; they—but he could stand it no longer. Snatching up his towel he bolted out of the room, breathing freer only when he reached his locker. Then in a jiffy he was dressed and running out, restless, almost in a fever to be somewhere else.

"Be at the training table—six o'clock." It was the captain who followed him to the steps to tell him.

The training table! He had not thought of that, and it was not immediately he could quiet himself. He had heard where "Bessie" Cotter's was, but not remembering exactly he asked a wondering Cambridge "townie" to point out where it was. Then, as it was still early, he retraced his steps toward Jarvis Field, the arena of his struggles that afternoon, lingering there a little while and later joining the others at Carey, starting through the evening shadows toward Oxford street, past the high bushes and through the fence at the vacant end of Holmes.

And now more than anything else the silence of the men astonished him. He did not realize at once they were merely going over their mistakes in the practice that day, studying while they were fresh in the mind how to improve, mapping out new work and laying plans. Yet even as they neared the eating quarters their spirits lightened, and as he sat down with them it appeared that never was a crowd more cheerful, more wholesomely youthful, so cordial and laughing; not so much unlike the fellows of his acquaintance, not all machines, but human beings with their weaknesses and limitations. If any had grievance against his neighbor the field seemed the place for settlement. The very one whose position he had taken in the line was next to him, as friendly as the rest. The comradery of it all was splendid. He was the first to finish. At the door the captain stopped him long enough to tell him to be on hand at eight o'clock next morning in the college yard, and besides he would want him early on the field in the afternoon. Released with that he went out of the gate in a couple of bounds and walked off rapidly. They were going to teach him fine points of football, which delighted him, because he felt he would be able to give something for something. The cool air soon calmed him and he walked slower. He went by the rear of the Holden

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Chapel, for the street there was not much frequented at that hour, and he did not wish to risk meeting any of his friends. His legs seemed wonderfully elastic, his bath had evidently refreshed him so much, with that rub-down which was new to him. And then a strong love came upon him—a love for the trees, because they were so still; a love for the very ground he was pressing with his feet, for it was part of Harvard; a love for everything and everyone. He wished he could see his mother for awhile to tell her of his fortune.

"Great work, old man! Great work!"

He had passed through the Square and reached Holyoke House, thinking he had run the gauntlet. But someone had been lying in wait to greet him; someone who pounced upon and thumped him on the back and shouted; then as his room-mate ascended the stairs with him he placed his arm proudly over the broad shoulders, and the four flights seemed hardly more than one, and his room opened before him like a palace, brilliant with only one jet lighted, ample in spite of its scant furniture and size.

His friends soon commenced arriving. They were going to stay for just a moment, but somehow they remained. Some of them sat and looked at him without speaking, as if some magic held them back, and they were such talkers too! As well as he could he set them at their ease, for in a manner he was beginning to comprehend. But at length the company dwindled to the little coterie that used to talk among themselves as brother to brother. The game that day, the game—at first it was nothing but that they had in mind. They had all been there and watched him; they seemed to remember every play. He was silent. It was fine enough to hear them, and with their words he grew more ambitious. The dread of the next practise, the fear of a fatal blunder which falls so heavily on a man after a day's success, the want of confidence to be able to do as well again, did not rise like a specter to sober him or make him restless.

"We knew it was simply a question of your getting a trial," they said. "You were prepared and could not fail. But your experience is one in a thousand. The average fellow works through torture before he makes the team."

"I hope all this will never change you from what you have been," observed one of the quiet ones.

The new man shook his head. Nothing should spoil him, and he would try always to maintain the individuality by which they knew him, for what they had learned in him to depend on. He felt that no one had so many friends but he was better off with all of them.

Then some started to joke him a little. They laughed over his old slouch hat, and they were sure they would see him in it forever—and particularly the sweater he liked to wear to the lecture room and about the college yard; the sweater with the letter on the left breast, where it ought to be. That brought them to a chaff that had a surer affection in it. He must never lose that laugh of his that had never reached an enemy, that shout that would have made a general famous, that spirit one could hardly be five minutes with and not feel its merry way.

"Why the university some day will be building gates to you," one cried, jocularly.

There was more of this before they bade him an early good night. He was in training now, and they must not interfere with that. So talking and laughing, proud and fond of him, hoping that their words might indeed come true, they went away.

But it was not time for bed. He sat down in the deep arm chair and thought of his friends, proud and fond of them himself. It had been his day—he had begun; and he trusted they would have theirs too. It should be his aim to follow the course they thought best, nor should he disappoint them. He knew something of Harvard, the traditions and tendencies and temptations, which ones to embrace gallantly, which to grapple with and throw. Within him he felt new capacity to discriminate between good and evil. His heart began to be as big as the farm he came from. The farm—that was what had been the cause of his success, with its rising with the song bird, the steady work that had put good air into his lungs and muscle on his back. He fell to asking himself if what his friends had said were so; that he would not accept defeat as long as he was able to try again, that he had the winning spirit. Suppose he did become a football player, a great one, and suppose he—but he set that thought and others like it immediately aside, for he must not anticipate even possi-

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ble results of striving in the right direction. He had simply had a breath of what might come, so that there was much to learn. Trying harder would accomplish it, and that was his receipt. He would not go ahead with over-confidence, and yet he would not calculate to fail.

Something, however, troubled him. If college was to make a man of him he wondered if athletics were the proper course. To give the best part of his energies to football might exhaust the wish to study; yet he felt the inclination to do both. Besides, training would keep him clean, the future continue the same as the past, when there was much that might have tempted him but for the thought of breaking the charm of a well-accorded physical condition; and there could hardly be a more wholesome education than that which kept the heart courageous and the body right.

All this drew him further toward the future, to a something gloomy, sad. Suppose after fine work afield he should be cut down before he ever started on life's serious labor —then it might not have been worth while, this training, the self-sacrifices, the working down the channel of his purpose. Still at all events he believed he would have done as well as he could along these lines—he felt he understood himself well enough to believe that, and it comforted him. Harvard probably did not look for great men among her undergraduates; rather fortified youth in case the opportunity for greatness came later on, and it was the manly thing now for him to obey the pleadings of his physical life, confident it would be a means to an end, trusting for his reward.

That was it, and he would explain it to his mother, because she must not think he was not making the most of his advantages. He got pen and paper and never stopped writing till he had told her everything. Then he ran down to the mail box, for she must receive the letter without fail next day, and returning with a lighter step softly opened and closed the door, so as not to wake his room-mate now asleep, undressed and put out the light.

He stood for a moment at the window. If he could have looked into the future he might have seen out there in the night the stars that he loved shining down on a spot in the peaceful arms of the Charles, where one day there would be a famous work-and-play ground, with its gate commemorating the efforts of a Harvard man.

THE REAL BANSHEE

By Aloysius Coll

Out there, on that old tree—
  Night's blackest wing—
You sit and croak at me,
  Dark thing.
I've heard poor singers try to sing,
  Poor players play;
But never heard the poorest fling
  Their notes that way.
    Your voice, your word,
    I never heard
Of anything
    Quite so absurd—
      Old bird!

Now, cock your evil eye.
  It's always night
In your black heart—that's why
  The white
In other souls upsets your gaze
  And turns your head.
I tell you, nightly bird, your ways—
  When all is said—
    Have sadly blurred
    The raven herd
For all its days—
    So I've inferred—
      Old bird!

I often look at you,
  On that old tree;
You seem some ghost, you do,
  Some black Banshee,
Set yonder, like a dismal star,
  A spirit dread,
To curse me, living, from afar,
  And steal me, dead.
    Art waiting, so?
    Or just a low,
Benighted bird—
    I'd like to know—
      Jim Crow?

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THE PASSING OF KEENOOSH-AW OGEEMAH

By Marstyn Pollough-Pogue

"No life so happy and so pleasant, as the life of a well-governed angler."—*Izaak Walton.*

UNDER the water, in the dim, umber-green deeps among the looming weeds, he was king, and no man can tell how long he governed as monarchs seldom dare to rule, and cheerfully ate his subjects when he felt within him the stirrings of appetite, which was often, before he gave up the ghost that spring evening, fighting hard, as it is meet and fitting that kings and over-lords ever should die. Probably he was fifty or sixty years old.

He was captured in the second week of May, Waw-beegoon-keesheesh, the Moon of Flowers, as the Mississaugas say, when the madder-red wake robins, the snow-white Indian paints, and the yellow trout lilies were opening in the Ontario woods, and the yelling wild geese were still steering north in dipping strings and swaying, spreading V formations, beautiful and swift.

The whirligig of time has made many gyrations; many seasons have run their length and gone away into the dim width of the past since that splendid evening of the northern spring-time when the gamy old fish turned his belly upward to flash back the rays of the dipping sun. The men who caught him are not sure whether he was a pike or a muskallonge; they did not observe whether he was marked with dark spots on a light background, or light blotches on a dark background, or whether he was spotted at all or not. And they did not notice the scales on his cheeks and gill-covers. But they knew he was a water-wolf, ravening and terrible. He was long and lithe, with vicious-looking jaws and staring, menacing, long-focus eyes. He was plated with pearl and copper and olive-green scales. His head was lacquered brown-green and cinnamon; his belly was milk-white, tinged with faintest pink and tenderest yellow. The structural spines of his wing-like fins and fan-like tail were crystalline and transparent. He was a beautiful shark. Keenoosh-aw is the name-word of his kind, in the O-jeeb-way language, the speech of the Mississauga Indians, who troll all day nearly every day in the summer and catch fish of his tribe, and of the tribe of Maun-ashsheegawn, the black bass, mostly.

* * * * * * *

On a map of Ontario you can find the seven northern townships of Peterborough county with the tip of your forefinger if the map is a good one. The blue blotches which stand for lakes are as thick on the yellow background of the map as emerald clots of lichen on the gray laurentian rock. Also the map is veined like your forearm with sinuous tracings of creeks and little rivers running wild. Apparently God Almighty made these lakes and streams by pouring water into troughs and saucers and bowls and gashes in the gray and gray-green and rust-red gneiss rock and the milk-white silurian limestone, and the widest and longest and deepest of those holes is the tremendous trough that contains the pure, cold snow-water of Stony Lake. It was among the islands in this lake—there are nine hundred of them, lumps of granite, with red pines, white spruces, and red and white cedars upon them—that the Ogeemah Keenoosh-aw (ogeemah means king), fought his last brave fight.

Near to the eastern end of Stony Lake and looking down over it, several hills locally called the Blue Mountains—though they are neither any gradation or tone of blue nor any kind of mountains, but only sprawling, long-flanked, round-shouldered hills—stand up in the hard glare of the sun all day and loom dimly in the blue twilight. Between the western roots of the Blue Mountains and the eastern end of Stony Lake you will observe on the map an outlined blotch like the O-jeeb-way Indian picture symbol representative of the snake totem. This blotch which is narrow and long is not as long as the name of the lake it stands for, which in the smallest available type extends half-way across the space allotted to the township on the map. The first few syllables of this name, the meaning of which does not matter, are Kosh-ah-

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baug-ah-maug; but the lake is very beautiful.

When the evening shadows gathered in the shallow valley between the hills and Stony Lake late in the afternoon upon a day in May very long ago, the Mississauga lodges of birch-bark, that stood on the southwestern shore of the lake with the name of many syllables, were draped with umber dimness which deepened around the rain-scoured pearl and cinnamon and buff bark walls until the hollow of heaven was filled with darkness. In one of the weeg-waums the fire was dead, and the powdery gray ash whirled and spun when the wind puffed down through the smoke-hole. In the other lodges the cedar fires were leaping, and the damask-red firelight beamed from the open fronts of the weeg-waums. From the round, skull-like top of one of the hills, where he stood among the gray, scarred rampikes, Tuque Rouge, a *coureur de bois* born out of his true time, discerned these lights spangling the gloom of the gathering night in the valley apparently several downward-dipping miles away.

He was very glad to see those glinting lights, for he had been lost for two days and a night. That was before the country was settled, and it is very easy to get lost even now in Metheun township. He was very hungry. Six ham sandwiches are quite inadequate to nurture a man through two slow-passing days. He had been endeavoring to find an elusive lumber camp, and had lost himself in the deeps of a dim, still forest where Nature seemed to have been holding her breath, with her finger pressed to her lip, for a hundred million years. He had elevated himself to the summit of the hill in order to enjoy the view. Sometimes places where men inhabit are in sight from the top of a hill.

He went down the long slow slope with swaying shoulders. He was nearly exhausted, to tell the truth. He passed through a spruce woods. From the little lake pealed the whooping laughter of a loon. Over the huddling spruces rushed a flock of wild geese, swinging low, and intoning all together their joyous, deep-throated chaunt, which quickly softened away. He walked across a beaver meadow toward the winking lights. A bull-lunged bittern in the cedars on the lake shore repeated her hoarse pumping call. He drew very ear and could see the tall lodges dimly looming. The puffing wind fanned the lodge-fires, and the flames leaped up, bloody and licking, and tinted the insides of the lodges. In the middle lodge a large man squatted, bending over his fire, smoking his red clay op-waw-gawn. "Waush!" (hello) said Tuque Rouge, and the big man raised a face he knew.

He was Michigawn Shegaug, a half-breed packer, whom Tuque Rouge had met on the Height of Land the summer before, packing two sacks of flour in one load. The wind gushed through the lodge doorway as he lifted his head, and Tuque Rouge saw the bulging neck-muscles that the tump-line had developed. The big half-breed shambled from his weeg-waum. He was a pagan with a heart full of old-fashioned kindliness.

An hour later, after eating much more than a man should devour at one sitting, and drinking about a quart of strong black tea, Tuque Rouge went asleep rolled in a four point camp blanket, and did not awaken until the next afternoon.

On the following morning, just as the gray light was warming into lilac, before the sun had swung up clear of the sky-line in the flushing east, Michigawn Shegaug and Tuque Rouge, carrying a frying pan, a tin pail, two tin cups, and provisions for two days in a basket, walked across the short portage trail to Stony Lake. In a clump of red cedars that reached out heavy branches over the water the half-breed had a birch-bark canoe *cached*. In the canoe were two Indian beaver-tail paddles and tackle for stream bait fishing and trolling. They put the canoe into the water, and with the long lifting stroke of Ontario backwoodsmen, deep dip and swift, measured swing, they paddled across to the northern shore.

Where that lacerated wild-water, Eels' Creek, slipping and spilling over laurentian boulders, and sliding over vertical gneiss dips, which form beautiful cascades, pours into the lake, they landed and pulling the canoe on shore, *cached* her in some thick juniper bushes. Cutting willow poles and tying to their tips light lines with small unsnelled Limerick hooks, they caught a few trout in the deep brown pools below the laughing and shouting reaches, using bits of bacon for bait. Alas, there are no trout in Eels' Creek now.

Long before the position of the sun, which peered wanly through wooly clouds, indicated that it was noon, Michigawn Shegaug

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stopped fishing and began to cook. First he dressed the trout, dividing them into pink flakes. Then he mixed batter with flour and water in the tin pail, made a variety of flapjack in the frying pan, fried the trout with slices of fat bacon, and made tea.

Under a stately white pine that reared up like a tower, the two men, wolf hungry, devoured their simply cooked, but delicious meal. The sky was padded with fat drab clouds when they finished, and they had just lighted their pipes when the rain came threshing down. But the thick branches were like a roof over their heads. A crystal arras of rain hung from the sky for two hours, and through it the Blue Mountains looked like hills of dream.

When the sousing shower was over they returned to the mouth of the creek, where it bounds like a buck over some bevelled rocks into a wine-purple pool. From this pool they took some brown trout, and as the afternoon drew on toward a tender close they launched their canoe and paddled slowly along the northern shore of the lake. A fringe of tall weeds frilled the shore, shaking in the light wind. The canoe slipped along close to the shuddering weeds, the flicking paddle blades splitting the water without sound. Michigawn Shegaug reached back, and from under the stern deck behind him he drew a trolling line with vicious-looking treble hooks almost hidden in a tuft of the brilliant feathers of the cardinal bird, and with a broad spoon made of half a clam shell, which gleamed richly, showing the tenderest tints of opal and pearl. "Mebby-so we geet beeg feesh," observed the half-breed with simplicity, dropping the malignant hooks and spoon and about fifteen feet of line over the gunwale.

The glimmering spoon began to gyrate in the water, looking like a white wing. As Shegaug dipped his paddle again and the canoe slid faster, it sank, spinning swiftly. It was an alluring fraud.

Keenoosh-aw Ogeemah, with indolently fanning tail and shivering fins, lay among the weeds in the brown-green dusk, six feet below the surface. This meshed and woven weed-bed was one of the many ambuscades in different parts of the lake, from which he flashed like a thrown spear upon his prey. His glinting, button-like eyes caught the gleam of the flicking spoon as it trailed within ten feet of his ugly nose. The old shark darted out instantly and gorged the hooks and spoon. He was always hungry.

Shegaug had the line between his strong teeth, and when the fish gave a quick impatient jerk, he lifted his paddle from the water and laid it across the cross-bar in front of him with a quick movement. "Got heem, dam' heem," he said, with calm, and swiftly he tossed about sixty feet of the unreeled line overboard, using both hands. Then he began to paddle furiously and Tuque Rouge, in the bow, followed his example. The light canoe skated obliquely across toward several small islands, half a mile away.

Keenoosh-aw Ogeemah knew nothing about hooks; but blind rage fumed within him. Diving to the bottom of the lake, he swam swiftly away from the shore, but on a wide slant from the canoe's course. Within a minute the heavy braided line was straining and stretching like a tow rope. Then the king fish rose quickly and leaped into the air, his long body bent into a curve. He made an energetic endeavor to release himself, bucking and jerking on the line. But the cord stood strain. He went down again, and the line slackened as he swam toward the canoe. Shegaug swiftly hauled in the slack. About thirty feet of line came dripping over the laced gunwale, when, of a sudden, the fish swung around and the wet coils ran out again. Shegaug made the line fast to the cross-bar in front of him just before the fish began towing the canoe. The half-breed laughed almost audibly. "One time," he remarked, "beeg feesh she tow me all 'round Juniper Island." He scraped a match and hollowed his big brown hands above his bowl pipe. Thoughtlessly he leaned a little sidewise, and the canoe capsized with startling suddenness.

The round-bottomed Mississauga bark canoes have no stability worth even casual mention. For reasons insufficient these egg-shell canoes dip with astonishing quickness and the fellows in them are surprised and pained. Shegaug had his long legs underneath the stern cross-bar, and the trolling line got looped around his ankles. He had to break it, but held the end tenaciously in one hand. With a tremendous effort, Tuque Rouge managed to right [illegible] canoe and crawled in, writhing over t[illegible] deck. She was half full of water, [illegible] paddles were floating under the cr[illegible] and the grub ba[illegible] had been

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under the bow deck, had not dropped out. The big half-breed apparently was quite as much at home in the water as Keenoosh-aw Ogeemah. He was floating high, and the strong-swimming fish was towing him towards the islands.

"Water dam' cold," he alleged, cheerfully. Tuque Rouge, laughing, swung the canoe around with a scooping stroke, ran her alongside him, took the line out of his hand, and with great difficulty, for the fish was pulling hard, knotted the broken ends. Shegaug heaved his long body half out of the water, and drew himself in over the stern deck. Thus, these two voyagers euchred adversity by strenuous endeavor. After that they well deserved their fish.

Tuque Rouge got the tin pail out of the grub-basket and threw some of the water he was kneeling in back into the lake, where it belonged. Keenoosh-aw swam straight on between the islands into the open lake beyond, using up his energy. When Shegaug thought the fish must be nearly exhausted, he hauled on the line with all his strength. The king fish, whirling around, sprang clear of the water again, flopping and bucking. Then, becoming tired, he lay quiescent on the surface and allowed the half-breed to haul him up within a few feet of the canoe. Possibly Shegaug might have pulled the big fish into the canoe then, but he knew the old wolf was full of fierce energy and vitality yet, and was afraid he would upset the canoe before he could be killed. As the two men stared, admiring him, suddenly he spanked the water with his broad tail, like a beaver, and plunging, disappeared.

Half a mile farther southward there were many islands. The fish swam very fast in that direction, and the canoe skimmed. In a short time the canoe was slipping through narrow channels among the islands. The voyageurs might have landed and beached their fish, but they were keenly enjoying the sport, and wished to prolong it. Slowly the half-breed drew in the line until only about thirty feet of it remained outboard. The great fish swam slower and slower. He possessed enormous strength, but towing the canoe rapidly was heavy work. He was wearing himself down. In a few minutes he stopped and rising to the surface, passively let Shegaug pull him up close to the canoe again.

The canoe was then in a channel about one hundred yards wide. On the island to the right a broad shelf of rock sloped slowly to the water's edge, forming a natural wharf upon which men might land easily from a canoe. Shegaug decided to land there and kill the fish. He swung the bow of the canoe toward the island. But the fighting devil in Keenoosh-aw Ogeemah awoke again and he endeavored to enliven the proceedings once more. He started away with the canoe again, but his captors dug their paddle blades deep, and paddling backward with all their energy, stopped the water-wolf. He came to the surface writhing and doubling, and thrashing the water into spume with his tail. Then suddenly he lay still, as if black despair had seized upon his brave spirit, and slowly sank to the bottom.

A dozen heaving paddle strokes slid the canoe alongside the gently sloping rock. Shegaug sprang out and quickly dragged the mighty fish up on the bare shelf. He floated in belly upward, as if utterly spent. But when the half-breed struck him heavily on his mailed back-head with a large chunk of rock he bucked vigorously until he received a second smashing blow. Then, shuddering, he expired.

Concerning the weight of this fish, he was six feet long and must have weighed thirty pounds. Perhaps a pound or two more.

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WITH THE WILD GEESE IN THE NORTHWEST

By Zachary Macauley Hamilton

THE westward encroachments of settlement on the prairies of Canada have changed the great stretch of plains extending from Lake Superior to the foothills of the Rockies from a hunter's paradise into an Eldorado of the agriculturalist. The buffalo vanished before the advance of the railroad. The graceful antelope has fled from the sound of busy husbandry far into the remotest solitudes; the beaver is a tale of the past, while the lonely gray wolf, solitary and sinister, no longer slinks through the waving grass, or dogs the footsteps of the weary hunter.

The breath of civilization has swept over the great lone land and the transformation is complete.

To the lover of the breechloader, however, the advent of settlement has furnished a possibility of sport seldom equalled and never surpassed the world over, for attracted by the fallen grass, thousands of wild geese gather each fall on the great stubble fields to rest and feed before the severity of the Canadian winter forces them to leave for the ever sunny lagoons of the far away south.

Early in September a few straggling flocks come in from the breeding grounds, among the rivers and streams of the more distant parts of the northwest, and make their headquarters on some swamp or lake at the outskirts of a farming settlement, going night and morning to feed on the stubble fields; their numbers are constantly augmented by new arrivals as the season advances until about the middle of October, by which time an immense number of geese are gathered in the vicinity of the farms.

In one particular district about twenty miles north of the town of Regina the geese take up their quarters on Long Lake, a large body of water a few miles north of the valley, and descend like a great feathered army on the farms. Regina is the capital of the Northwest Territories, where the settled land extends up to the Qu'appelle Valley, and is by it cut off from a bleak, uninhabited tract of country that reaches northward for many miles. Very fine flight shooting may be had by the sportsman concealing himself among the hillocks on the north side of the valley and waiting for the geese as they pass in from the lake in the early morning, but in this, as in almost every variety of sport, local conditions must be studied. For instance, an accurate knowledge of the different lines of flight, taken under varying conditions of the weather, is essential to even partial success; if the day should be calm, there is not even the chance of a shot, for when there is no wind the geese fly so high as to be far out of range.

Flight shooting is not nearly so easy as might be expected, as the birds fly fast, although their large size gives them the appearance of slow movers, and when alarmed they have a habit of darting off in all sorts of eccentric twists and curves that is very disconcerting to anyone new to the sport. The morning flight usually lasts about an hour, during which time the birds pass over in an increasing stream, sending up a deafening clamor as they settle on the stubble fields to the south of the valley. There they stay until the forenoon is well advanced, returning to the lake about eleven o'clock, where they remain until perhaps five in the evening, when they come back to the feeding grounds for a short time before darkness sets in.

It is astonishing, considering the number of geese which visit the plains of Assiniboia annually, how few are killed, but the western farmer, although usually familiar with the rifle of the plainsman, is seldom expert in the use of the shotgun. I remember how in the fall of 1894, when a most disastrous failure of both the grain and hay crops had left a great number of the settlers in the Regina district practically without provision for the winter, and it never appeared to occur to the poverty-stricken farmers, who were appealing to the Government for aid, that with thousands of geese swarming on every hand, here at their very doors was a prolific source of food supply.

Now while it is comparatively easy to get good shooting by intercepting the geese as they fly from one point to another, it is

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altogether a different matter to approach them while feeding in the open; the absence of cover together with the wariness of the birds makes it the next thing to impossible to stalk them in any ordinary manner. It is surprising to observe the precautions which they take to guard against danger. Sentinels are posted all along the outskirts of the main body which never fail to give warning on the approach of anything in human form. There is, however, a device which is often employed with great success to get within range of the feeding birds. Although geese have a not unnatural distrust of all members of the human race they appear to regard the lower animals with a certain degree of confidence, and will allow cattle or even horses to come quite close. The sportsman may, therefore, take one of the large plow oxen which are found on nearly every prairie farm and by concealing himself behind the bulky animal get well within shot.

I have a very distinct recollection of the first time I employed this stratagem and the success attending it. I was at the time a young lad putting in the inevitable farm apprenticeship, and with the sporting spirit of the Old Country still fresh within me, I was filled with the wildest excitement at sight of the thousands of geese which daily thronged the stubbles. One day late in October I was assisting at a neighbor's wheat threshing and from the top of the strawstack had observed an immense flock of geese, which all through the forenoon had been rising and settling about a stubble field within half a mile of the farmhouse. An accident occurring to the machine necessitated a delay of an hour or more, and I eagerly jumped at the suggestion of the farmer that I should try a stalk on the geese with one of a yoke of oxen standing in his barn. So taking what I considered the more likely-looking one of the pair, I started out amid the jeers of the threshers, who appeared to be very sceptical of my success. It was one of those boisterous days which come sometimes in the late fall. A high wind was blowing, and every once in a while a sleety shower would come driving like smoke across the prairie. Just the kind of weather that, for some unexplainable reason, makes wild geese easy to approach.

As I got farther out in the open, I saw there was an immense flock huddled together in a depression in the center of the field, and apparently quite oblivious of my presence. Watching them from behind the shelter of the ox and debating with myself as to the best manner of approach, I saw a small flock of about ten birds fly up from the main body and settle in another part of the field. The way in which they headed up the wind when rising brought to my mind a principle of wild fowl shooting which I had learned when chasing the solon goose and great northern diver among the voes and fiords of the Shetlands, viz., that big birds find it very difficult to rise with the wind and are consequently easier to approach from windward than from any other direction. So bearing this in mind, I manœuvered my ox round until I had the weather gauge of the geese and moved cautiously down upon them. When within fifty yards of the flock, I stopped, and peering over the shoulder of the ox, I had a chance such as is seldom accorded to even the most persistent sportsman, of observing a large number of these magnificent birds in a perfectly natural state. Although not sufficiently alarmed to take flight, their suspicions were aroused concerning my trusty animal and a spirit of uneasiness could be observed among them. The geese in the main body of the flock were huddled together as closely as they could pack, while the sentinels were walking around on the outskirts with characteristic showy action and every once in a while flapping their wings and emitting sharp, warning cries. After watching them for a few minutes, I moved forward again, intending before firing to advance until they should rise. As the ox drew nearer the geese appeared to get more excited, running backwards and forwards in a state of great unrest. When I was within twenty yards of them they rose with a rushing of wings and a mighty clamor of cries. I ran from behind the ox, firing both barrels into the thick of the flying mass, and as the smoke cleared away a flurry of feathers showed me that I had done some execution. One or two fell dead at once, but I did not know the full extent of my success until, with the assistance of some of the members of the threshing gang, I had searched the whole field and found that eight birds had fallen to the two shots. Such slaughter, however, is not sport, and the foregoing description of an incident as it really occurred

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By courtesy Harper & Brothers.

I STOPPED AND PEERED OVER THE SHOULDER OF THE OX.

is merely given to illustrate a unique method of stalking wild fowl in the open, often employed by the pot-hunter in the west.

Good shooting can often be had by making hides in the fields and putting out decoys, but this scheme is not always successful, because having so large a range of stubble makes the geese very uncertain in their selection of feeding grounds. The sportsman may have the doubtful pleasure of shivering in his place of concealment for a couple of hours on a cold fall morning without even a stray bird coming his way. At the same time the chances are about equal, that he may have good sport.

But to the true lover of sports afield, stalking with an ox or luring the birds by means of decoys is a very tame method, compared to the grand excitement of flight shooting as it may be enjoyed on the north banks of the Qu'appelle, where the birds fly strong, and, matched against the sportsman, have even chances for their lives. Many and many a morning, as the patches of gray in the east were slowly growing into day, have I crossed the valley and climbed the hills above the river, so as to be in the track of the flocks, that I knew must come from the lake as surely as the sun would rise over the distant bluff. It is cold up there in the hills, with perhaps a raw chilling wind driving the night mists out of the valley and soughing and sighing in the ravines below. But who cares for wind or wet or cold or discomfort, when far away to the north can be heard the *Yahonk-yahonk* of a courier blackneck coming to herald the winged procession even now on its way. Nearer sounds that full-throated cry, until out of the morning mistness he comes, a solitary bird with curving wings flying low and strong and straight and swift, heading to pass well within range. And the ten bore breaks in two with the sweet click that is music to the sportsman's soul and the shells go home. He's going fast; aim well ahead; by jove, that cuts him down: let him lie; look towards the lake. The flocks are coming, flying low over the knolls, and soon the sport grows hot, for thousands of birds are now making the passage of the valley and there is no lack of chance to show the sportsman's skill.

Life on the prairie is full of toil and hardships and danger and many a hard scrape the pioneer has to keep the wolf from the door, but with the wind, even as I write, bringing, by force of old association, the smell of powder and the clamor of the wild birds to me, I shall be the last to say that it has no compensation, and compen[illegible] that is well worth while.

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THE EXPRESSION OF THE FACE IN VIOLENT EFFORT

By R. Tait McKenzie, M. D.

A GREAT difference in the stride and look of each sprinter will be noticed by the most casual observer who stands at the winning post and watches a group finish a well-contested hundred yards dash.

This one runs his distance with a smooth brow, a smile on his face, each muscle and joint moving like parts of a well-oiled engine. Another is stolid or looks slightly distressed, his head tilted backwards and his chin out, while a third is calling into action reserve after reserve of muscles, to try, by the use of some that have but weak and indirect action, to increase, even by the smallest degree, the length of his stride, or to quicken his movement. This great effort is mirrored on the runner's face with unfailing accuracy. On other occasions he may pose or look indifferent or even smile, as the acrobats do to show the ease with which a difficult feat is performed, but in the fierce struggle of a sprint he has no time to think of the effect he is producing on the audience, and if the race is hard, his face cannot but show the severity of the strain.

If we look at a series of pictures of one runner, the condition can be followed clearly. These photographs show Bernard J. Wefers, one of the fastest and most nervous men that ever toed the scratch. In Fig. 1 he is running easily, his face showing neither strain, fatigue nor even concentration, his brow is smooth and his lips slightly parted. In Fig. 2 he is crouched at the start, awaiting the pistol. Every sense is alert and every tendon quivering with eager expectancy. His eye is fixed on the goal, his brow furrowed, his jaw and neck fixed—everything showing the concentration of his attitude. In Fig. 3 he is shown in the middle of a close, losing race; he is running stride for stride with his opponent Colfelt, and his whole energy is concentrated on the effort to gain even an inch or two by working every muscle that may help, however indirectly. Here we see the face of a man working up to the limit of his powers. His brows are drawn down and in, and wrinkled about the root of the nose. The lips are

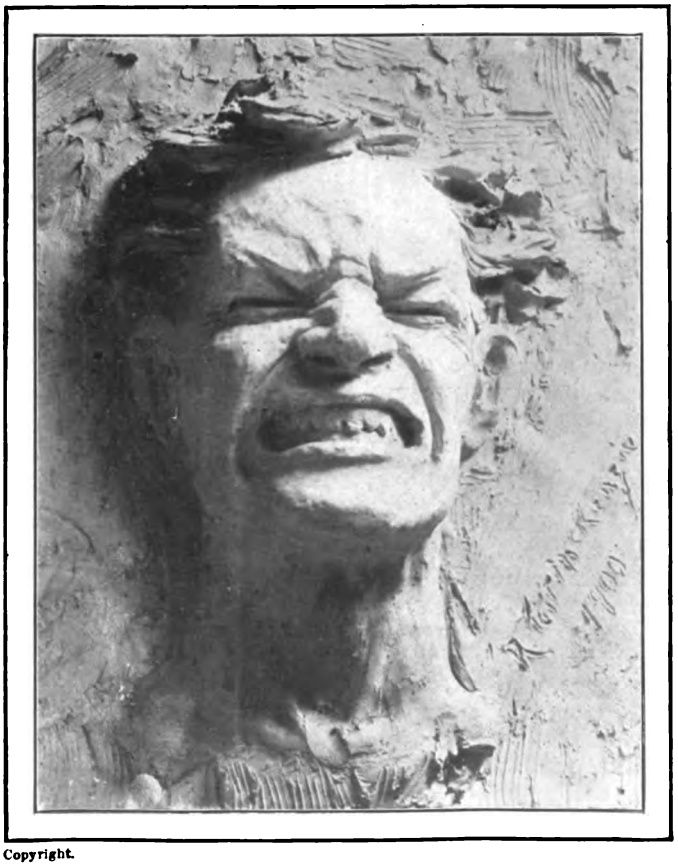

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FIG. 7—MASK SHOWING TYPICAL FACE IN VIOLENT EFFORT.

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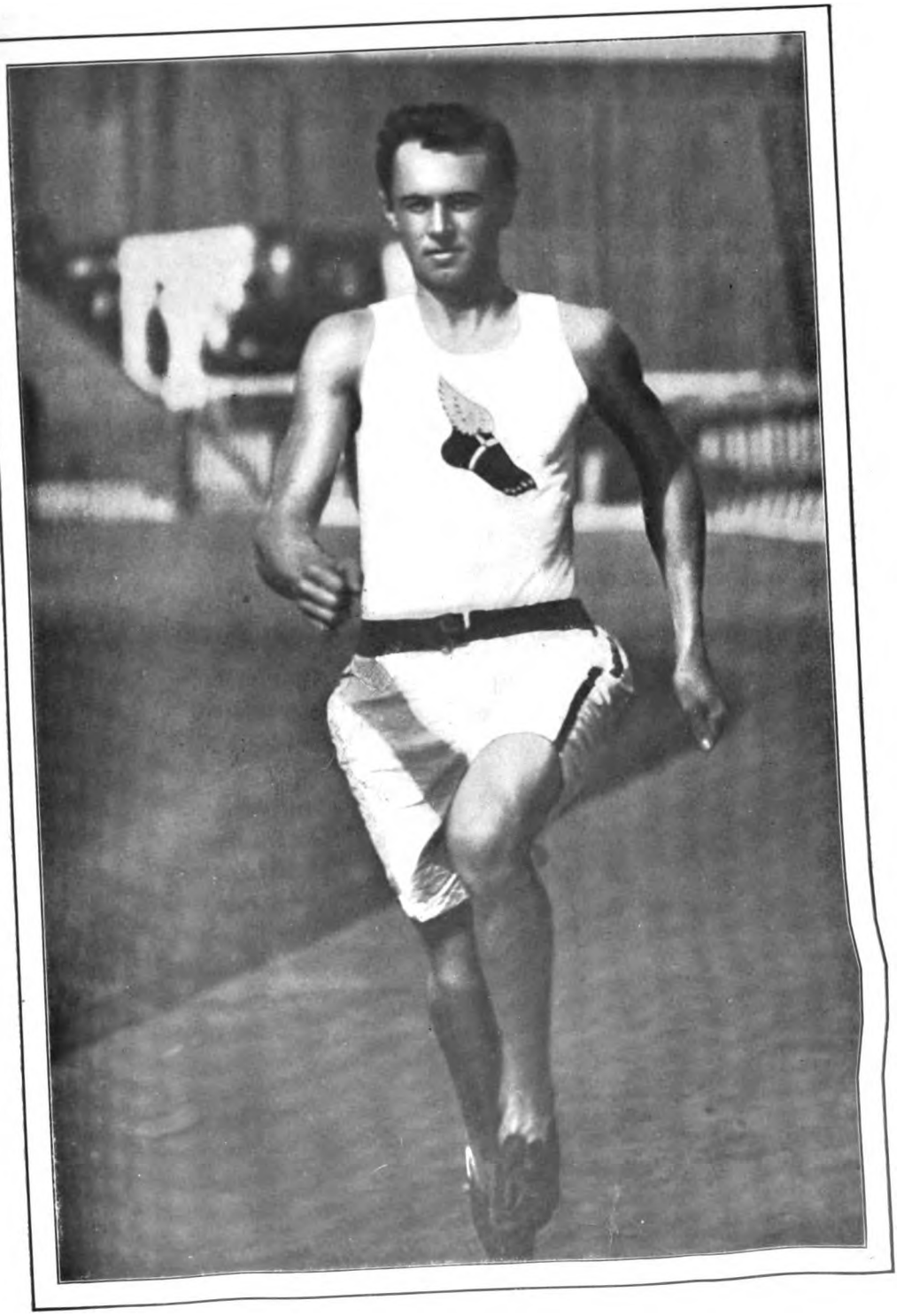

FIG. 1—B. J. WEFERS,
N. Y. A. C., RUNNING EASILY.

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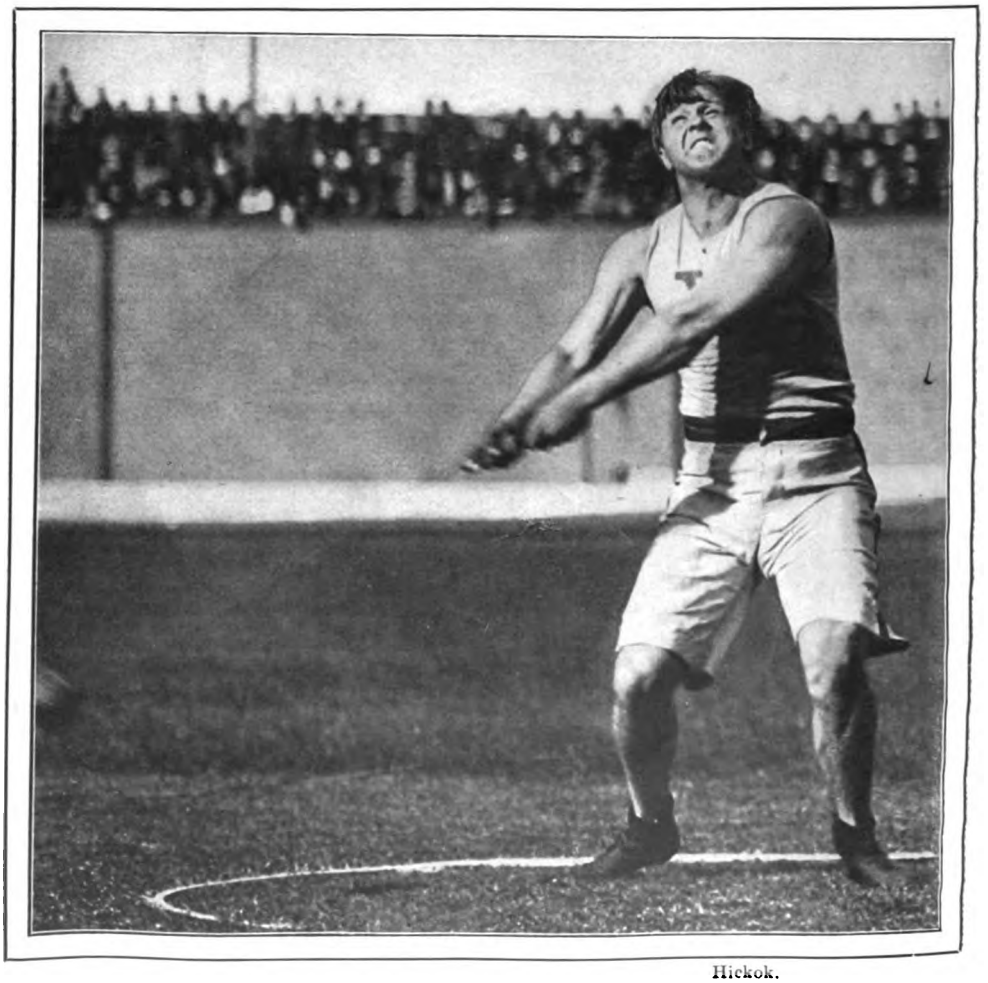
drawn back from the clenched teeth, and with the expanded, updrawn nostrils, give a snarling expression to the face. His neck, if it could be seen, would appear swollen and corded, every part of his body taking part in the intensity of the strain. His opponent shows the same condition but in him it is not so typical or complete.

To explain these sinister lines on the face of Fig. 3 it will be necessary to follow the course of a race from the point of view taken by the physiologist. At the start of a hundred yards dash the runner catches his breath and can hold it till he breasts the tape, a period of about eleven seconds. This he usually does if closely pressed. During that time the whole body is under the stress of the most violent action, the great muscle masses of the legs are in powerful alternate contraction, the arms are swung with vigor from the shoulders and the torso is pulled and compressed by the ever-changing needs of rapid and varying action. To give a solid *point d'appui* for the arms, after filling the lungs, the chest walls are fixed by shutting the glottis which corks up the air in them and keeps the chest from collapsing as it otherwise would. Over these resisting, elastic air chambers the muscles of the thorax contract, pressing the ribs inward and so giving a firmer origin from which the muscles of the back and chest can act in swinging the arms. As a result of this squeezing by the muscles and ribs, the pressure on the heart and lungs is tremendously increased, the blood no longer gets its



Hickok.

FIG 6—THE FINAL HEAVE OF THE HAMMER.

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Wolers

FIG. 2—AT THE START OF A SPRINT

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Colfelt. Wefers

FIG. 3—WEFERS IN A LOSING (220 YDS.) RACE.

oxygen easily but remains dammed up against the floodgates of the heart and backed up into the great veins which lead to it, making the jugulars in the neck stand out like cords. The face becomes purple and swollen and the eyes suffused and red; the lids are tightly drawn over the eyeballs, as if to prevent the over-engorgement of the small veins that form a network within the eyeball itself. This strained condition of the neck and eyes is to be seen in this runner, Fig. 5, who is in the throes of a close finish. He is attempting to run faster than he can and his face shows it. In such a race the system soon feels an urgent need for air and instinctively puts into action all muscles that can in any way help the breathing. Some of the muscles of the neck contract strongly and help to give it a swollen and corded appearance, the nostrils are stretched wide and drawn up and the lips are drawn back from teeth clenched in resolve. The head is sometimes thrown slightly backward or more often flexed strongly on the neck, as it is in Wefer's case, Fig. 3.

This peculiar expression of the face is not confined to sprinters alone for we get glimpses of it in wrestlers, jumpers, hurdlers and throwers of the hammer and 56-pound weight. In the figure of Hickok of Yale, Fig. 6, we see the athlete in the middle of his last circle before letting the hammer go, his feet are braced and he has concentrated all his energy on the spasmodic effort required for the final heave. In his face again the typical lines of strain and effort appear, the contracted brows and wrinkled eyelids, the snarling nose and lips drawn tightly across the clenched teeth.

After studying many photographs and observing these conditions at many athletic meets, a type of expression has gradually shaped itself in my mind and I have endeavored to give form to this typical face in the mask shown in Fig. 7. In working out this head in clay I have not followed any one model but have tried to select only what was typical in each individual, to so combine them as to express the acme of violent effort. In this face we see a general converging of the lines to the root of the nose, the transverse wrinkles across its bridge marking the action of the small muscles used in expressing menace or hatred, the frowning brows

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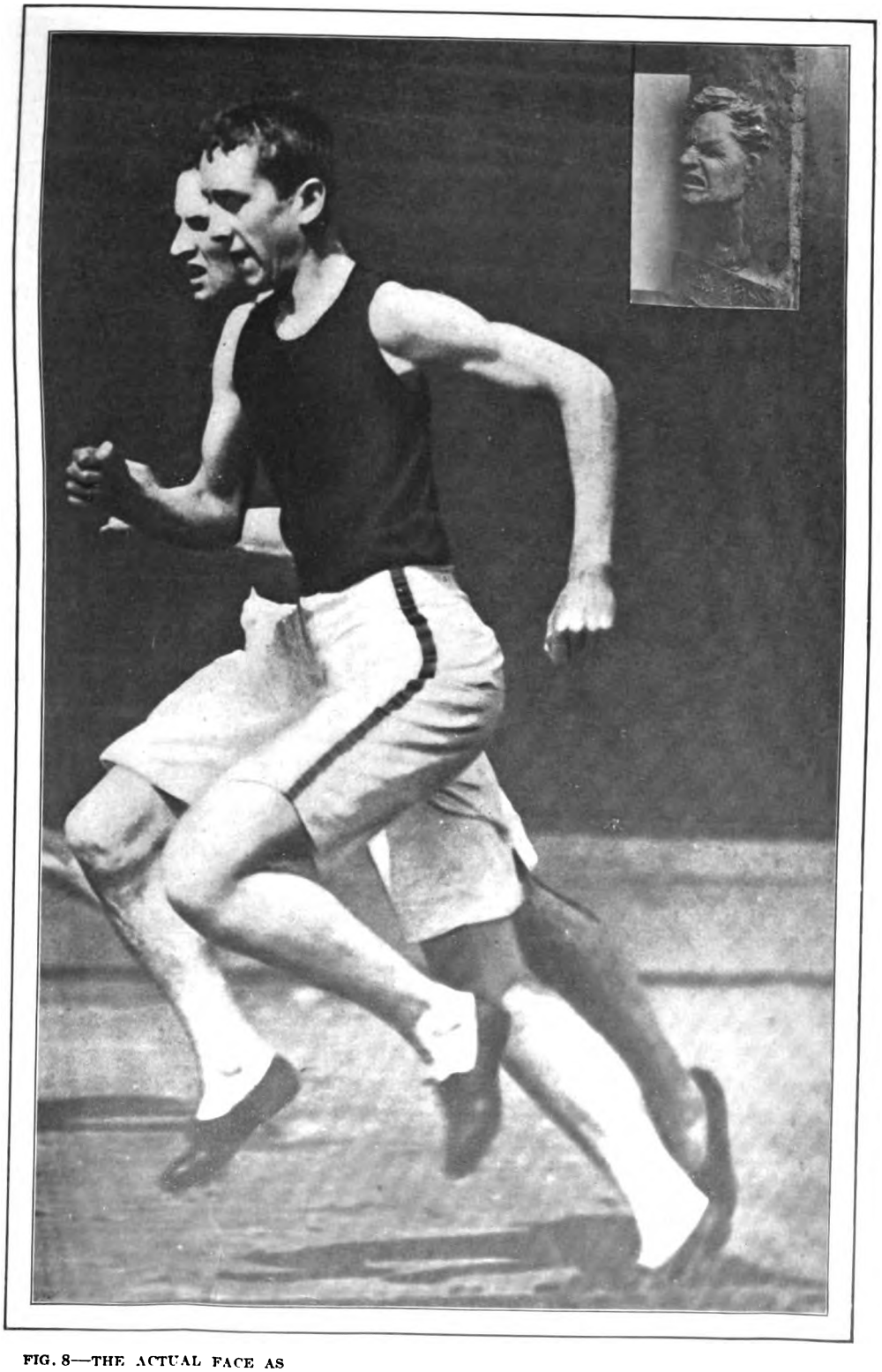

FIG. 8—THE ACTUAL FACE AS COMPARED WITH THE MASK.

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FIG. 5—IN THE THROES OF A CLOSE FINISH.

are drawn down and in and the lids are swollen and the opening of the eye is narrowed to a slit that barely permits the runner to see his course. The outer angle of the eye shows characteristic "crows feet". This closing of the eyes may account for some of the frequent fouls that were caused by a runner swerving from his course and interfering with his neighbor, before sprinters had to run in the narrow lanes that so effectually keep them apart in a championship meet. The nostrils are dilated and the wing of the nose shows a sneer or snarling expression, such as one sees in a fighting or growling dog—an expression that is made more marked by the raising of the upper lip near its angles to expose the canine tooth or fang; the whole cheek is carried upward and forward and the direction of the groove from nose to mouth is altered. The lower lip is drawn across the clenched teeth except at the corners where it is pulled away leaving little pouches at each angle. The muscle that does this passes downward and backward over the jaw to the neck and upper part of the chest. It is not always under control of the will. In action it causes ridges in the neck parallel to its fibers as it is pulled up to fill the hollow from the jaw to the neck, and it is continually put into action when the breathing is impeded or in sudden and violent effort. I have seen it spring into action in a boxer delivering a blow and in the action of squeezing a grip dynemometer.

The general impression of this face is repulsive. There is hatred, menace and rage in it, and yet thoughout there is a feeling of distress that goes, a little way at least, toward softening its hardness. Occasionally a snapshot shows nearly all these characteristics in one face. In the photograph, Fig. 8, the head appearing just in front of the man in the foreground, can be compared with the side view of the mask seen in the corner of the picture. If due allowance be made for the difference of the lighting in the two heads, the same contraction is seen about the root of the nose, the lips are drawn back from the teeth in the same way in both faces, and the sneering expression of the nostrils in both faces is readily made out.

In looking over descriptions of facial expression to find something with which to compare this mask, I find in "*Oliver Twist*" that Dickens describes an infuriated mob as "snarling at him (a murderer) with their teeth and making at him like wild beasts." This snarling has been observed by Dr. J. Creighton Browne during paroxysms of rage in the insane. Darwin, in describing rage, says, "the lips are much more commonly retracted, the grinning or clenched teeth being thus exposed; the appearance is as if the teeth were uncovered ready for seizing or tearing an enemy, though there may be no intention of acting in this manner."

Among the artists one finds but little material with which to make comparison. Most artists would consider it outside their province to express the disagreeable or repulsive, and, where possible, they avoid

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FURY, BY MICHAEL ANGELO.

it. But Michael Angelo has left among his drawings a head expressing fury and intense action with most unmistakable accuracy. The contracted brows and wrinkled nose, the dilated nostrils and agitated neck, correspond to the type of violent effort, but the staring eyes and shouting mouth serve to give it its peculiarly distinctive character. In Sir Charles Bell's figure of Rage we have a face that corresponds much more closely to strain; the bent brows, wrinkled nose and eyelids, swollen eyes, snarling nostril and cheek and curled lip, all suggest violent effort; while the lower lip is drawn down and the teeth exposed to view.

The staring eyes in his drawing are characteristic of passion, rather as an intellectual emotion than of the passion of effort, which is a more purely animal feeling or physiologic state. The great need for air felt by the runner is shown by the pulling back of the lips, which, in Rage, as pictured by Bell, are only raised to show the teeth as weapons of attack.

In the Louvre there is a statue of Milo, the famous athlete of antiquity, splitting a tree trunk with his hands. The legend, on which this pose is evidently founded, says that he saw a log left by the woodmen in the forest lying partly split and held open by wedges; wishing to try his strength he made a mighty effort to tear it apart by his arms alone; the wedges dropped out and his fingers remained caught in the crack, from which he could not relieve them. Wild beasts came and attacked him while he was in his helpless condition, and so he met his death.

In this statue the pose of the figure shows that he is putting all his strength into the task. His contracted brows and the intense gaze of his eye well express effort—the contracted muscles of the neck carry out well the idea of the pose, but the mouth shows, at most, a look of slight discontent; the vigor is missed entirely in the lower part of the face, and so the statue fails to leave the impression of intense strain and effort, such as the artist, undoubtedly, intended to give it.

MILO, BY DUMONT.

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PHOTOGRAPHING THE BELTED KINGFISHER

ONE OF THE SHYEST OF THINGS WHICH FLY

By Gene Stratton-Porter

IN the days Aristotle wrote his peculiar work on ornithology, and Pliny classified the birds in three families—"those that have hooked tallons, as Hawkes; or long round clawes as Hennes; or else they be broad, flat and whole-footed, as Geese" (and their successors up to the time of Linnæus did little better)—there was one bird that caused more trouble than all the rest put together. Greece, Italy and all the north coast of Africa knew it. It flashed its magnificent coloring about the islands of the

"A GREAT BLACK BEAK, SCARRED WITH TUNNELING; A FLARING CREST, A THROAT OF SNOW AND A BIG, SOFT, LIQUID EYE."

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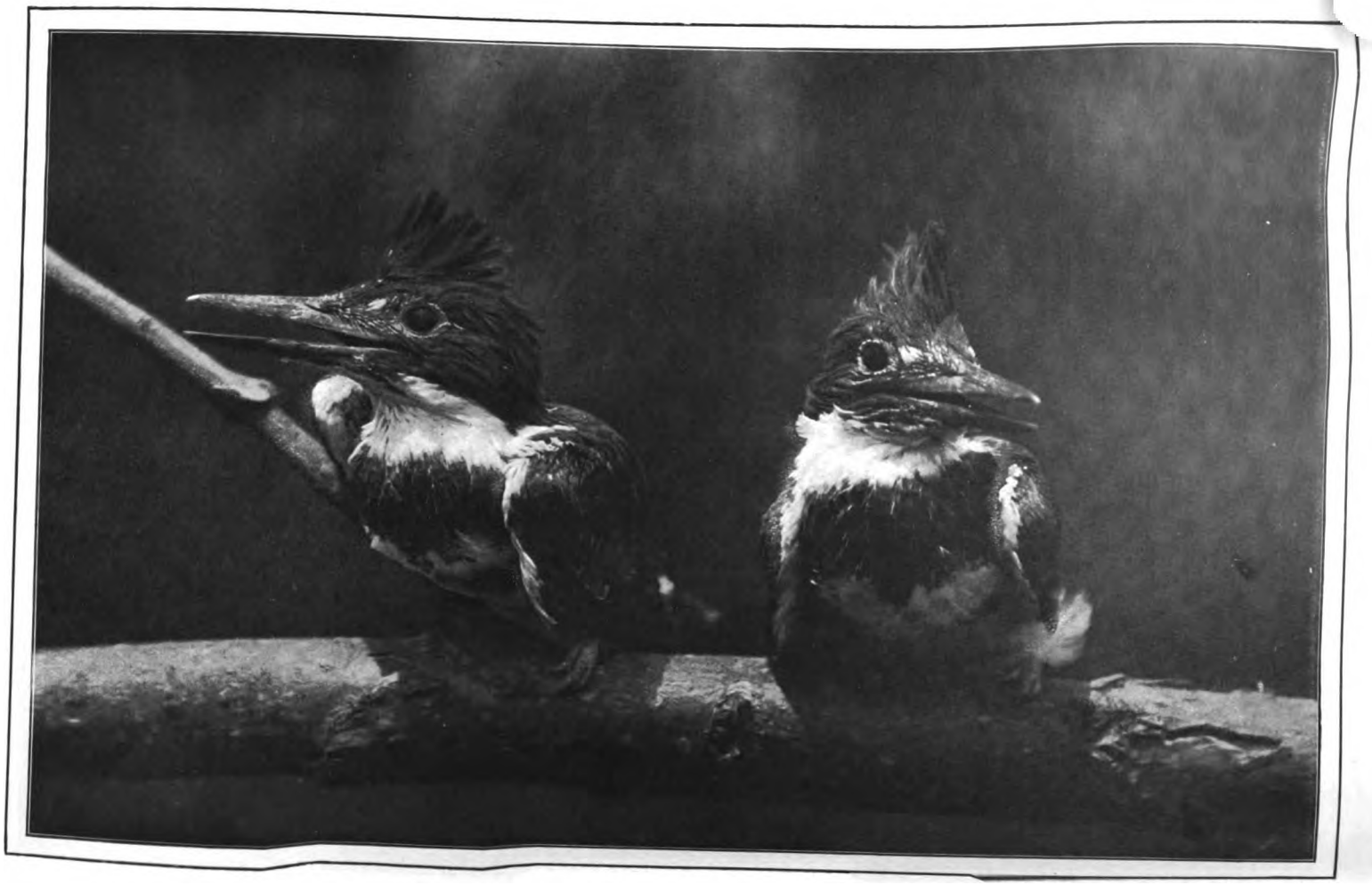

"A WEEK BEFORE LEAVING THE NEST."

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Ionian and Ægean Seas. Cyprus, Crete and Corsica homed it as well as all the river regions as far inland as explorations had been made. About the waters of the world in all known countries this gorgeous bird, with its massive beak, its flaring royal crest, the blue of heaven on its back, the green of the waves in which it dipped on its wings, the white of the surf on its throat and the brown of earth on its breast, multiplied and increased, but obstinately refused to reveal where or how.

It was frequently seen feeding its young, yet never a deposited egg or brooding bird had been found. People began asking the ornithologists embarrassing questions. Obviously something had to be done; so they met and agreed on a beautiful theory. Since no nest had ever been discovered on the ground, in trees, mountains, or in caves; since it was a bird of the river and sea coasts; since it seemed to subsist entirely on fish, it was essentially a bird of the water, and it nested and brought forth its young on the sea. The safeness of this theory strongly commended it, as the ornithologists could not reasonably be asked to produce a nest.

So they evolved a beautiful legend of a floating, raftlike structure, washing on the bosom of the sea, sheltered by the hollowed hands of the wind god Æolus, who, at the time of the winter solstice, when the young of these favored birds were brought forth, hushed the gales, calmed the sea and commanded all nature to behave her loveliest in order that their nests might ride the waves in safety, and thus furnish future novelists and poets with material for constant reference to these first halcyon days.

The belted kingfisher of North America is one of the most beautiful species of the halcyon family of the ancients. Even our kingly title is a poor substitute for its Grecian name, which means calm and peaceful, and inseparably connects it with classic legend, mythology and medieval superstition. Round it clings the legend of the halcyon days for which most of us die hoping, and to this legend is due the more modern superstition that its dead and dried body suspended by a cord would indicate the direction of the winds, have power to turn aside the lightning's stroke and bring peace, plenty and even beauty to its owner. With the exception of practical America, there is scarcely a country on the face of the globe that has not surrounded this rare bird with legends. To this day, in remote quarters of France and Germany, the drapers and tailors believe that a dried halcyon will prevent moths among their woolen fabrics.

From Ovid's legend of changing Ceyx and Alcyone into kingfishers, whose propitious nesting was watched over by the gods to the extent of annulling ordinary climatic conditions, it was but a step to attributing to the birds themselves the power to calm the winds and waves and protect ships at sea, so that islanders all around the world, most especially those of the Pacific, make these birds an object of protection and worshipful veneration.

Kingfishers never congregate and seem numerous in any location, yet they are as evenly distributed over the face of the globe as any other bird. There are one hundred and twenty-five species, according to the grouping of Dr. Sharpe, who honored them by the compilation of a complete work, but the belted kingfisher is our only specimen.

We boast no more characteristic or interesting bird. It is a bundle of exaggerations and sharp color contrasts, a thrilling sight in its free, wild plunges of flight, and startling in its vocal powers. Its beak, eyes, crest and head are astonishingly large, and its legs and feet so insignificant as to appear crippled. Its body and wings appear about three-fourths, and its tail one-half, what they should be to proportionately correspond to the size of its head.

Its beak is of immense size, angular, straight and strong, longer than the head and black, except at the extreme tip where it takes on a tinge of old ivory. The corners of the mouth fall directly under the eye. The tongue is the shape of an acute arrowhead, and is ridiculously small, and the gullet is surprisingly large.

In coloring, the kingfisher is one of our most gorgeous birds. His flaring crest extends well down the nape of his neck, and, with his back, in adult male specimens, is as blue as the sky above him, a few of the heaviest crest feathers being shaded with such a deep steel gray as to be almost black. His wings and tail are of a darker hue, the wings at times seeming tinged with the green of the water in which he trails them. Both wings and tail are shaded with gray, and thickly sprinkled with broken bands and dots of white. Directly in front of each big, soft, liquid eye is a snowy disk, and his throat, and a wide band encircling his neck,

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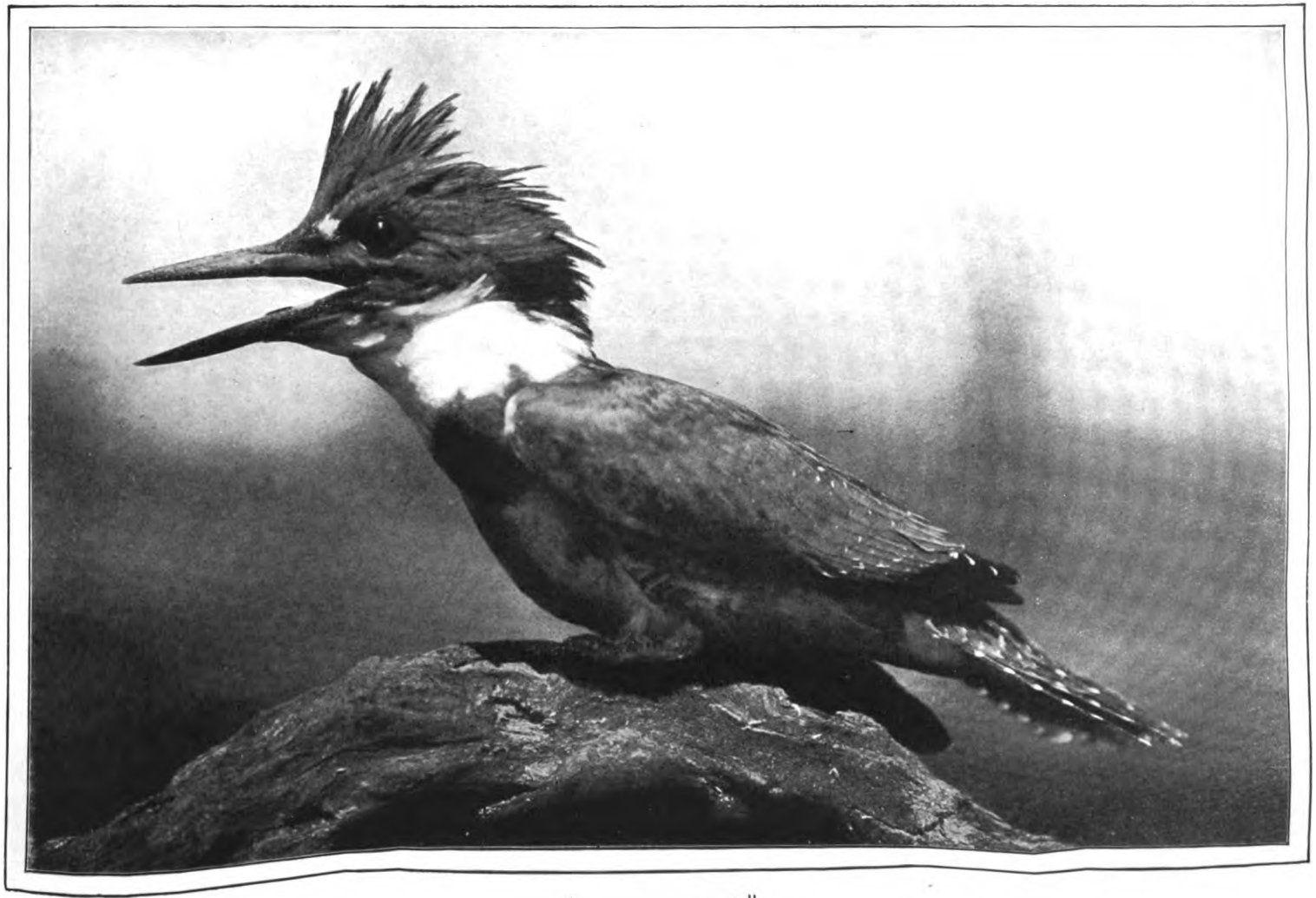

"LAUGHING JACKASS."

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are white as foam. A V-shaped band of mottled blue, three-fourths of an inch wide, crosses his breast, and his under parts are a mottled blue and white.

Certainly no more peculiar sound issues from the throat of a bird than the kingfisher's clear, rolling cry, which, during courting and the mating season, rises to a discordant shriek. The little fellows can rattle beautifully two weeks before they are ready to leave the nest.

Had it not been for the difficulty of the ancients in locating the nest of the kingfisher, it might have come down to posterity stripped of much of the prestige given it at present through legends and fables. Their brooding is accomplished so nearly as to become a rule in a tunnel hollowed out by themselves in a sheer declivity, the higher the better, penetrating to an average of six feet, where a small opening is frequently made on one side that appears to be the sleeping apartment of the male, and the real nest is on the other, occupying a space a foot in diameter and five inches deep. It takes two or three weeks of drilling to hollow out their tunnel and nest, as it is almost invariably located in hard, sandy, clay soil; and the effects of the work can be seen on the scarred beaks of the grown birds.

Their breeding season begins the first week in May, and from two to six white translucent eggs are laid on the bare earth of the nest. The greatest part of two months is consumed in hatching and rearing the young, which are peculiarly slow in leaving their damp, dark home. But one brood is produced in a season.

Their spread of beak is enormous, and with fearful writhing and contortions they swallow whatever they capture, just as they take it, and regurgitate the indigestible parts. This habit forms a rim of fish scales, bones and other matter about their nests that is responsible for the theory among people that ought to know better that they build their nests of these materials. As a matter of fact, they finish tunneling, and lay at once on the bare earth, and these regurgitations accumulate about them in their long siege of brooding and baby feeding. This refuse proves that their diet is preferably fish, but they also eat crabs, mollusks, insects taken on wing and a few berries.

The movements of a kingfisher on its feet are comic in the extreme. They do not know how to turn around or move in a circle, straight lines being invariably followed. This probably comes from their early training in their tunnel, the circumference of which will not admit of turning. They move sidewise in a series of quick, little hops, or "crawfish" like a flash. On wing, where their magnificent coloring is best shown, they execute a series of flashes, darting from one dead limb to another without perceptible wing movement.

They are essentially birds of the water, and their perching places, so nearly as to become a rule with scarce an exception, are on stumps, posts and dead or charred limbs in or overhanging water. In fishing, they perch immovable, and when they see their prey, strike the water squarely, beak first, often securing it so near the surface they are only partly covered, and again they dive, and are out of sight a few seconds. On securing their prey, they dart to one of their favorite perching places, toss the fish in air, dexterously catching and swallowing it, head first.

By tunneling into the back of a nest the young can be slipped therefrom at about ten in the morning when the old birds are off fishing, pictured and replaced at will, without doing them the slightest injury, from the time they are stubbly pin-feathery little fellows, until they are almost as large and perfect of plumage as their elders.

A few days of following a pair that have a brood to feed will discover a systematic course they pursue in their daily search for food, and a series of dead limbs on which they are sure to alight in going to and from their nest about the water on their favorite fishing routes; and it is on these limbs, overhanging water and free from foliage, that hidden cameras can be focused, and the most accurate and lifelike studies possible to make of a free, wild bird secured.

As they perch on these blasted limbs, keenly eyeing the water and banks below, sometimes with closed beak, sometimes lolling with heat, sometimes emitting their free, wild cry, in the utterance of which, with head thrown up, crest erect, and beak widespread, they look exactly as if they were convulsed with mirth at some huge joke. Possibly they see the original sucker bite, or learn why the biggest ones always get away. It must have been in this attitude that the witty Australian who gave to them the name of the "Laughing Jackass," so common in that country, first saw them.

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DEER STALKING IN SCOTLAND

By Walter Winans

AS I began shooting in Scotland as long ago as 1870, when I was a small boy (the total of deer shot by myself up to the present time being 1,161), a few of my notes on this subject may be of interest, especially as some of the European ways of shooting deer may be a novelty to American sportsmen.

Every nation has its own ideas of what constitutes a "sporting" or rather sportsmanlike way of killing deer. In the counties of Devon and Somerset in England deer are hunted with hounds and followed on horseback, and to shoot one, either with rifle or shotgun would be looked on as a crime. The Germans shoot stags when they are "roaring" in October and November, and use "lappen" or small bits of colored rag strung on ropes to keep the deer from breaking in the wrong direction on drives; both of which methods are considered most unsportsmanlike in Scotland. In the United States, I am sorry to say, there is a tendency to shoot female deer and young ones, which is rightly considered wrong in most other countries.* In Scotland there are three species of deer, red, roe, and in a few places wild fallow, the latter only escaped park deer. In Germany and Austria the roe deer are shot with the rifle, but in Scotland the usual thing is to shoot them with the shotgun, when shooting small game. Some men have a few cartridges with large shot in their pockets, and, *if there is time*, substitute these for the number 5 or 6 shot they are using for grouse, but if a roe deer comes unexpectedly they shoot at him with the small shot. I think shooting deer with shot a most unsportsmanlike and quite unjustifiable proceeding, and it ought never to be allowed.

The only excuse is that to hit roe deer bounding along requires good shooting with a rifle and few men could kill them if they were not allowed to use a shotgun; but then they ought to learn to shoot a rifle or else leave

*Mr. Winans is misinformed; there is distinctly not "a tendency in the United States to shoot female deer," the trend is quite in the opposite direction; in point of fact no man in the world is so mindful of sportsmanly ethics as the American big game hunter. —EDITOR.

BRINGING IN THE TROPHIES.

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the poor roe alone. The weapon I prefer for roe deer is a .32 or .38 American rifle with light charge (most English "rook" rifles, which correspond to the American rifles named above, are, if made by a good maker, very expensive, or if cheap ones, not nearly as good as American ones of the same price).

The principal deer of Scotland, and those always meant when "deer stalking" is mentioned, are the red deer. This species is a miniature edition of the American wapiti (miscalled the elk). A big stag weighs, as he stands, about 280 pounds, and they roam in large herds in the wildest parts of Scotland. The so-called "deer forests" have very few trees, and these only in fringes in the valleys, but most of the ground is covered with rocks and heather, and in places, a little coarse grass. Most of it is entirely unfit for cultivation, and though parts are used for grazing sheep, the latter have to be removed in the winter or they would starve. All the talk a few years ago about removing men to make room for deer was nonsense written by people who knew nothing about the subject. Most of the ground used for deer forests is fit for nothing else, and the poor deer themselves have a very hard time to keep from starving to death. Add to this the fact that forests are let, often yearly to different tenants, who each try to shoot all the biggest and best stags they can, and it will be seen why the breed of Scotch deer is gradually deteriorating and yielding worse heads (as the horns are called) every year.

A forest is generally let with a limit of the number of stags allowed to be shot, the price being from $100 to $250 for each stag, that is to say a forest where a hundred stags may be shot lets at a yearly rent of from $10,000 to $25,000. The male deer are called stags (one with twelve points to his horns a royal); the female deer, hinds, and the young, calves. The recognized time for shooting stags is between August 1st and October 10th, but in Great Britain there is no close time for deer, hares, or rabbits. This gives poachers an advantage when they go deer shooting, as they cannot be convicted for poaching, but only for trespassing. Also, for this reason, a $15 game license is not needed [illegible] shooting, but only a $5 gun license. [illegible]rst part of the shooting season stags [illegible]endency to keep by themselves, but [illegible] middle of September they begin to go with the hinds and the last few days of the season, or earlier, if the weather gets cold, each big stag begins to collect as many hinds as he can, and to defend them against all other stags. At this time they are easier to shoot as they do not keep such a sharp lookout for danger.

There are three ways of shooting stags practised in Scotland, stalking, moving and driving. The first consists, nominally, of going out with not more than one or two men (called foresters, stalkers or gillies, according to their rank in the forest.) The forester has charge of a tract or beat, the stalker is the one who shows the sportsman or gun what to do, of which more later, and the gillie is merely an assistant.

The stag when found, by looking for him with a telescope, is stalked or crept up to and shot whilst standing. Many would-be authorities on shooting deer say that this is the only legitimate way of shooting stags; that driving deer is merely butchery, etc.

The description I have given is the theory of stalking, let us see what it is in practice.

The gun starts out on a pony, with the stalker walking some distance in front.

The stalker, whenever he feels a little out of breath, stops, pretends to see something, lies down, lights his pipe (it is extraordinary how a stalker, whilst forbidding his gun to speak above a whisper, or show the least bit of his head above a stone where deer are likely to notice it, thinks nothing of puffing a dense cloud of tobacco smoke in full view of deer.) When the stalker and gillie have had a long smoke and spy as they call looking for deer, talking all the time in whispers about what the gun imagines is how to creep up to the deer, but which to one who understands a little of Gaelic, sounds suspiciously like "how are your potato crops getting on"—the procession moves on, to repeat the same stop and smoke at the next stiff bit of climb. Finally, the gun is made to get off and crawl on his hands and knees through all the dirtiest bogs the stalker can find, and if the wretched gun tries to lift his head a little to prevent the dirty peaty water getting down his neck, the stalker says "down" and makes him lie flat down in it. At last he shoves the rifle into his hand and lets him look over a rock and shoot a stag at about fifty yards distance. The gun has not to show any skill or knowledge of woodcraft, and why he should be praised I cannot see.

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Of course, many men do as I have done, go out quite by themselves, find, stalk and shoot their stag all by themselves, or, if they have a forester or stalker with them, have him only to bring the deer to the larder.

The second way of shooting deer by moving requires great walking and running powers on the gun's part, besides skill in making running shots, and consists in walking down the beat, in line, with several men between each gun. Walking towards ground where deer are feeding, the gun opposite stalks them whilst the other guns keep as much out of sight as possible. At his shot the rest of the deer are shot at by the other guns, if they pass near enough, if not, the line moves on, running if necessary, to cut off the deer, and so manage to keep them moving. This can, of course, only be done in big forests, as it may drive all the deer off a small one.

The third mode of shooting, called driving, is the one concerning which those who know nothing of deer or their habits make such outcry. The popular idea is that the deer are driven up like sheep close to the sportsmen who sit in armchairs and shoot into the thick of the herd. Now a deer will not be driven in that sense at all. If a deer thinks the beaters are trying to drive him to any spot, he will at once turn round and go in the opposite direction, even if he has to knock down or jump over the beater in doing so. Deer do not like to go in any direction except up wind, that is, in the direction from which the wind is blowing, so as to enable them to smell danger ahead.

It requires the most elaborate plans and a very great knowledge of the habits of deer, the lay of the ground and the wind currents which come round from gulleys and hollows often in quite a different direction to the rest of the ground. The deer are as difficult to corner as DeWet, and break through the beaters as often as he does through the British army.

The guns have to be placed just off the wind, so that the deer should not smell them and yet be going as nearly up wind as possible. The beaters must work so as to give the deer the idea that they (the deer) are going just the reverse way the beaters want them to. Often an old hind will come to the lead of the herd, take a look all round and then deliberately lead a charge straight back through where the beaters are thickest. If a gun fires too soon he will send all the deer back through the beaters, and when he does get a shot the deer are racing past him at top speed and jumping six feet at a time in the air, stags and hinds all in a tangle; if he kills a right and left clean on the two biggest stags under these circumstances I consider him a much better shot and a better sportsman, especially if he has planned the drive himself, than a man who has crept behind a stalker and shot a stag standing still at forty yards. Also the deer themselves have a better chance pitting their wits against the drivers than being shot whilst feeding quite unconscious of danger. For deer-driving I think double-barrelled English express rifles of .5 caliber are best, as the big bullet knocks down the deer quicker than the smaller .303 or .256 modern nickel-covered bullet, and in driving it is impossible to go on after a wounded deer till the drive is over, so it is important to knock him down on the spot. I do not approve of the express hollow bullet, however, it makes a horrible wound, and spoils the venison as well for a large space round the wound.

For stalking the smaller calibers are better, as there is not so much drop to the bullet at longer ranges, and there is less chance of missing if the range is miscalculated. I, contrary to the usual custom, shoot at the middle of the shoulder instead of the heart. My reason is that in the first place there is a larger killing area, and a solid bullet breaks both shoulders usually as well as going through the lungs, and therefore prevents the stag going on any farther even if not quite dead at once. A shot at the heart not only gives a very small mark, but if it hits a little too low or too far back a deer may go for miles and perhaps die days afterwards. By shooting at the shoulder I have hardly ever lost a wounded stag.

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MIDDLE WESTERN FOOTBALL

ITS GROWTH AND THE SEASON'S OUTLOOK

By Henry L. Williams, M. D.

ALTHOUGH behind the eastern colleges in acquiring skill and knowledge of football, the west has made rapid strides, and it is now perfectly safe to say that the great eastern cities see no finer play, and no keener rivalry than is found to-day on the gridirons of the Middle West, and upon the Pacific Slope. The past ten years have wrought great changes. Before the year 1890 the quality of players at the western institutions was crude compared with that at Harvard, Yale and Princeton.

I well remember witnessing one of the first football games ever played between the eastern and western colleges, sometime about the middle of the eighties, when Michigan played Yale, at Hartford, Conn. The Michigan team, which had made a clean sweep of its western rivals, had been much heralded throughout the east, and Yale, Harvard and Wesleyan, with all of whom games had been scheduled, were looking forward with apprehension to the coming contests.

The Hartford game, being the first of the eastern series, was of particular interest. A reminiscence in connection with this game may serve to illustrate the status of western football at that period.

Yale easily won the game by a large score —more than 50 to 0. This the Michigan men took with the best of grace, although greatly surprised to find themselves so completely outclassed and outplayed. At the end of the game one of the Michigan backs, tall and slender, with a jolly face and curly red hair, proposed to the Yale captain in all seriousness that a foot race be improvised and that they race one another the length of the field; he was greatly disappointed when the proposition was politely, and with some amusement, declined.

All three of the eastern colleges defeated the Michigan team by large scores and it returned home with its first serious lesson.

In 1890 the colleges of the Middle West whose football teams held a prominent place were Michigan, Minnesota, Wisconsin, Iowa, Northwestern, Beloit and Purdue, and of these Michigan led the van.

In 1891 Minnesota came to the front and for three years held the undisputed championship of the west. It was at about this period that coaches from the older eastern college teams began to make a strong impress upon western football. In the days of her early supremacy Minnesota was greatly aided by Ben Morrison of Yale, 1891, and a little later by the famous Heffelfinger.

In 1892 Chicago secured the services of A. Alonzo Stagg of Yale (now professor in Chicago University, as head of the department of athletics), and began immediately to forge toward the front rank.

Two years later, Phil King, the former Princeton captain and quarter back, went to Wisconsin and since that time the "Badgers" have ever been in the first class.

Michigan, the pioneer in western football, although not always victorious, has always been among the leaders of the west. It was appropriate that the first really great team which the west has ever produced—and which has probably even yet never been surpassed, should develop at Michigan. This team—of 1895—was a remarkable one. Large, powerful, swift, equally strong on offense and defense, it excelled in every department of the game. All the western elevens played were easily defeated by large scores, and in the game against Harvard, played in Cambridge under unfavorable conditions after a long trip, the Crimson was victorious by a score of but 4 to 0. Individually this team was an aggregation of stars. Denby, the center; Hall and Hooper, guards; Villa and Henninger, tackles; Senter and Price, ends; Bloomington, full-back; Ferbert and Hollister, half-backs; and Baird, quarter-back, will long be remembered in the annals of western football.

In 1896, for the first time, the University of Chicago placed a team in the field which entitled her to be ranked among the leaders of the west—Michigan, Wisconsin, Minnesota and Northwestern also having strong teams of about the same grade, so that no championship could be decided.

In 1897 Wisconsin for the first time pro-

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duced a great team which easily defeated all its western rivals, although it must be admitted that the standard of the game that year had fallen somewhat below its former plane. During this year the west produced two of the greatest kickers yet to have been seen on the football field. Herschberger of Chicago, and Pat O'Dea of Wisconsin, the "kangaroo kicker" as he was popularly known. Herschberger excelled in accuracy and distance in punting, while O'Dea, both in punting and drop kicking, was the wonder of the west. No eastern institution has ever produced their superiors, and rarely even their equals.

In 1898 Chicago, Michigan and Wisconsin had heavy and powerful teams of about equal ability, none of which, however, made any particularly brilliant record, while Northwestern, Minnesota and Illinois, as in the preceding year, fell into mediocrity.

The game played by Chicago, this year, with Pennsylvania, in Philadelphia, was an exceedingly interesting one. The first half ended with the score 6 to 6, and the Quakers had been clearly outplayed. In the second half Pennsylvania succeeded in scoring twice and Chicago was shut out, though the showing for the west was a good one, as Pennsylvania had at that time one of her most powerful aggregations.

The eleven which Chicago developed in 1899 was the strongest which she has ever produced, and deserves to rank among the historic teams of the west.

The great strength of this aggregation lay in its back field which possessed extraordinary ground gaining ability. The line was but an average one and the team not specially strong on the defense. Captain Kenney, the "giant quarter-back," as he was called; Slaker, as full-back, now famous for his line plunging; Hammil and Henry, two very swift and able half-backs, formed a back field which has probably been equalled but seldom at any institution. The individual ability of these men, combined with perfect unity and harmony of action, gave the team a ground gaining power which enabled it to defeat both Brown and Cornell, play Pennsylvania a 5 to 5 game in Chicago, outclass Minnesota, and in the final post season game with Wisconsin for the western championship to win by a score of 16 to 0.

In this year, too, the University of Iowa came into a prominent position in western football, and succeeded early in the season in playing a 5 to 5 game with Chicago, on the strength of which they claimed a joint title with Chicago to the western championship. There is no doubt that under the able direction of Dr. Knipe the Iowa team showed a very high quality of football, but as not enough of the other leading western institutions were played by Iowa to make her claim valid, the team was not properly appreciated and possibly not accorded all the credit which its merit deserved.

The season of 1900 was a most interesting one. The teams of Wisconsin, Minnesota and Iowa clearly outclassed all others and of these Minnesota deservedly takes first place, although Wisconsin was but slightly inferior. The game between Wisconsin and Minnesota, in which the latter won by the score of 6 to 5, was one of the greatest games ever played in the west and probably unequalled anywhere in point of interest and excitement.

The make up of the Minnesota team was quite remarkable—not a man on the eleven being less than six feet tall, and the general average hight being six feet one inch. Every man was clean cut, swift and active, combining weight, speed and strength, and at the end of the season, when the team had reached the edge of its true form, the aggregation was one of the most formidable that the writer has ever seen play.

The Iowa team did not meet either Minnesota or Wisconsin, but easily defeated both Chicago and Michigan. The tie game of 5 to 5 on Thanksgiving day with Northwestern, that Minnesota had defeated the previous Saturday 23 to 0, rather injured Iowa in rating her season's work, although she lost no games to other colleges.

Wisconsin overwhelmingly defeated Chicago, while Chicago won from Michigan in their final game upon Thanksgiving day.

An unusual amount of interest is therefore centered in the season of 1901 which is now just about to begin.

Wisconsin loses but two men from her last year's team—Pratt at quarter and Riordan at guard—and should make a strong contestant for the western championship. As Skow, last year's center, will probably be moved into the place at guard left by Riordan, King has only a center and quarter to find to make his formidable eleven of last year complete—and material for these places is abundant.

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At Iowa the old men who have returned are Williams (captain), quarter; Watters, right end; Burrier, left tackle; Briggs, sub center; Colthard, sub tackle; Macey, sub full-back; Hollenbeck, the second team's big tackle; Siebert, Herbert, Maresh and Buckley last year's substitutes.

With this number of old men and thirty new candidates who have reported for work it is expected that a team quite as good as that of last year will be developed.

At Minnesota, Tweet at right tackle and Hoyt at right end, will be lost from the line, and in the back field Van Valkenburg and Smith, right and left half-backs, respectively, will not return. The new material at Minnesota is promising, where it is hoped that a strong team may be again developed, although the loss of Tweet and Van Valkenburg will be most severely felt.

Chicago loses this year Henry, quarter and left half; ex-captain Speed, center; File, left end; Rich, right end; Ervin, right guard; Eldridge, right half, and Garrey, left end and quarter; but is favored with a large quantity of valuable incoming material.

McNab, the former Michigan center, and Wheeler, the old Brown center and tackle, are both available for Chicago, while Rex Kennedy, Atwood, Carey, Cook, Remp, Perkins, Snider, Pettit, Jennison, Strauss, Flannigan, Grandberg, Spike and Hunter are looked upon as the men from whom the team will be formed.

A successful season this year at Michigan is looked forward to with confidence. Eight, and possibly nine, of the men who played in the final game with Chicago upon Thanksgiving day, will return. Snow and Redden, ends; Shorts, guard; and captain White, tackle, are among the best in the west and on this nucleus the team will be built.

At Northwestern, last year's team will sustain the loss of but two men, whose places can be ably filled, so that the old team will be practically intact.

Illinois will remain under the same system of coaching and although losing several valuable men has good prospects for a strong team.

DUCKING BOATS OF MANY WATERS

THE KIND AND HOW THEY SHOULD BE MADE

By A. G. Holmes

POSSIBLY no one form of sport is more thoroughly enjoyed than duck shooting by the vast army of sportsmen of the world, for it has an indescribable fascination. To-day we make a good bag and to-morrow possibly none. Yet the days that we draw blank are oftentimes full of pleasurable remembrances, and we look forward to the next day when we may go out in the marsh or pond, lakes or rivers. The pleasure of a good duck hunt, however, depends a great deal on the outfit we may have to use. The gun may not be a thing of beauty or guaranteed to kill at one hundred yards, but it will do; the decoys may not be good, but the ducks will sometimes come to anything if the situation is right. The boat we use, however, must be dry, safe and roomy. How hard it is to be out in the sharp weather, when winds whistle through the reed and rice, and chill one easily, if our boat leaks and we cannot keep our kneeling-cushion or hay and blankets dry. We get cold, and though we may have good shooting, with the dampness in our boat we lose a great deal of the pleasure of the day. Again, a side shot at a bird that has slipped almost by, the boat tips and we get damp as the water comes in; or worse still, we turn over in the cold water. These things and many others we must guard against in the ducking trips. We need a boat, of the best kind; built for service and not for beauty or speed. There are, of course, places where we would not need a boat—on a duck pass with a good retriever, in the shallow ponds of the west where rubber boots are all that is needed, or in shallow rivers. But duck shooting as we generally find it—wide

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A LOG DUCKING BOAT.

lakes and rivers, large marshes, deep bayous and the Great Lakes—requires boats as an absolute necessity for our sport.

Boats for duck shooting differ according to the place for which they are made and used. One locality accepts one style as best for its wants, while not far away another style is used. As the sport is at its best at those times of the year when gales and violent storms are always to be expected, the boat should be built to stand any emergency. First of all, it must be staunch and safe to shoot from; dry, buoyant and with ease of handling and a fair running quality. It should be decked over with a combing to keep out the spray and waves. The hight is regulated by local conditions and the grounds upon which the boat is to be used. The length, as a rule, will vary from fourteen to sixteen feet; while width depends upon the size of the person who will use it; the widest part should, however, always be about four to five inches forward of the boat's center. The bow must be built on the form of a sledge runner, so it will go over obstructions easier and make less noise, besides leaving less wake, and making less fuss in being pushed ahead. Marsh boats are wide and low, being of extremely shallow draught; lake and river boats are deeper draught and narrower beam. We may divide the duck boats into three classes, viz.: the canoe, the skiff and the sneak boat. These three are subdivided again, as I will describe, aiming to give some practical suggestions as to their makeup: The canoe as a dugout, made from a large tree; the canoe made from inch strips (or smaller) and the canvas-covered canoe. The dugout canoe is made from a good log, pine preferably, and when sawed will be 14 or 16 feet long and about 10 to 12 inches high at the ends. A carpenter will be able to dig the boat, leaving it about an inch and a half thick on the bottom, and the sides, gradually thickening as they near the bottom, are sometimes not more than a quarter of an inch thick at the top, a half inch will be right, as the decking strengthens the sides considerably. Of course the canoe is not dug out until it has been roughly shaped. Sometimes it is burned out after the Indian fashion, but not generally. A dugout of 26 inches can, when made, be widened to 28 inches by spreading. For lake use or on a large river a boat 28 inches extreme width, 14½ feet long, 11 inches high at bow and stern and 10 inches high at center will make an extremely fine craft. Decked over 3½ feet at the bow and 2½ feet at the stern, decking on the sides about 2 inches to the combing will leave a cockpit 8½ feet long and 24 inches wide. This gives you a boat with plenty of room in which to move about.

In decking a hunting boat the stern end should be rounded out where the combing is put in, or a board hollowed slightly if it is to be a straight piece. Your combing in a paddle boat should be in the shape of a cigar, the bow end of the combing being the point. Do not deck your boat over too much; it is a mistake often made; it is unpleasant to be obliged to poke around under decks to get at decoys or some article out of arm's reach. Make your decking higher at the center than at the sides.

A dugout canoe of the above dimensions decked over will weigh about 70 to 80 pounds. The dugout never leaks, and if made right I believe will outlast by ten years, if properly taken care of, any boat

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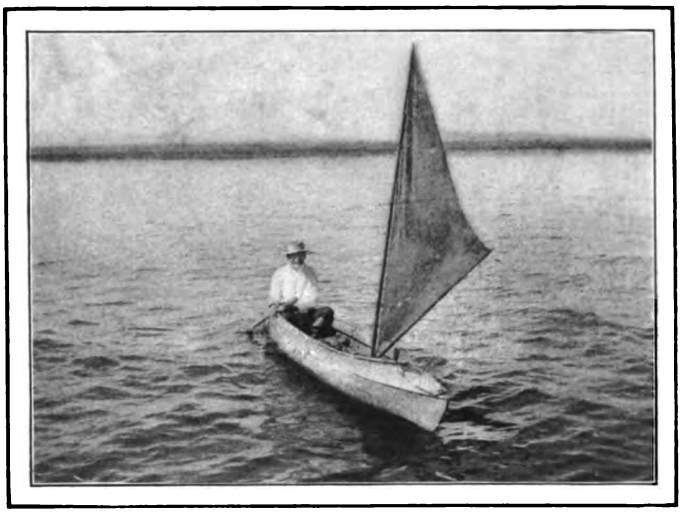
constructed out of strips or boards. They are, of course, a boat of the lumber region, and high-priced compared with others.



A STRIP DUCKING BOAT.

The strip canoe as made here is without ribs and is a smooth-skin boat. The bottom is a 2-inch board; the strips are fitted into the bow and stern pieces fastened by screws every 6 or 8 inches, and is drawn into shape by clamps, giving the boat the canoe form. The bottom strips are thicker than those at the top. When the strips are all on, the boat is smoothed over and given a good coat of white lead; it is then painted and if made right will look like a log canoe. Decked over like the dugout this is a satisfactory hunting boat, but it must be built by an expert, and needs to be looked after constantly, as it is affected by climatic changes and difficult to keep tight. These boats run a little wider than a log canoe, and as a rule are about 30 inches wide and weigh 90 pounds.

The canvas-covered canoe is made similar to the ribbed strip canoe, excepting that the strips are very thin and over these are stretched canvas and heavy coats of water-proofing. This makes a light and an easy paddling boat, capable of a fair degree of speed, as indeed are all these canoes, both under sail and paddle. A pole of about 9 feet with a V-shaped prong of steel is necessary in poling through marshes. Paddles of maple and as light as each person's taste may prefer are best. The bark canoe is not a duck boat.

The skiffs are divided into strip, board, iron, canvas and the clinker skiff, which should be built by a professional. There is also the sneak boat, which is usually outlawed by sportsmen.

The strip skiff is built on the same style as the strip canoe, but is not drawn into canoe shape. It is wider and lower, being about 9 to 10 inches high at bow and stern and about 8 to 9 inches at the center. Built as a smooth-skin boat, its dimensions are about 14½ or 15 feet long, 32 to 36 inches wide; it is of very shallow draught and easy to paddle; is decked the same as the canoe, and can be used with oars very nicely.

The board skiff is built by using two boards for the bottom and two for the sides. It should have good strong ribs and is not a hard boat for an amateur to build. It is sharp at both ends and is not perfectly flat, as, when made correctly, the bottom, from the center, slopes up to both the bow and stern pieces. It is perhaps the most commonly used type and can be seen on almost any body of water; therefore I will let this description go, as most every one who has any use for a ducking boat is familiar with it.

The canvas skiff is made by stretching canvas and heavy waterproof over a clinker boat framework. However, if a canvas skiff or canoe is wanted, it will be better to buy one of the many good makes now on the market. The same comment applies to the pressed iron or heavy tin boats for ducking purposes, which are also very good, and at the same time within reach of the majority of sportsmen's pocketbooks. They are cheaper than dugouts or strip canoes, and will last a long time with proper care.

In painting a duck boat the first coat should be white lead, allowed to dry in well. The paint can then be put on; and right here let me give a little advice as regards color for a duck boat. Use a drab or a lead color. It makes the boat least conspicuous, whether in the weeds or on the bare shore, or out in the open, of any color devised for such purposes. It blends with all of the natural

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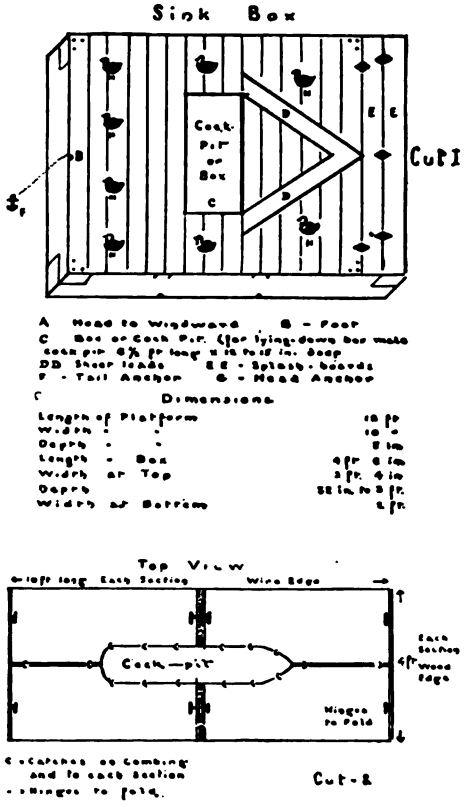

surroundings and you can get along with less ambush or blind than with any other color.

Give your boat two coats of paint inside and out and let each dry in well. Have your paddles of maple, and at least five feet long, and you will find five and one-half feet better. You can use short, light oars, with outriggers if you prefer, also bow-facing oars. A small sprit sail or a mutton-leg sail will come in extremely handy. All these boats sail quite well and are very steady. An eight foot to ten foot pole will be the proper thing, or a pole and paddle combined. Do not have your paddles so wide where the hand grasps, as the factory-made paddle. It tires your hand too much. Have them nearly round at the grip. Carry a sponge. You will often find it handy.

The user of a sink box has a great advantage over any person who has to use the regular duck boat for open-water shooting.

On the shallow flats of the great feeding grounds, half a mile or more from shore and weeds, where these birds will drop in without suspicion, the sink box is placed, with a large flock of decoys set all around.

The shooter is down to water level in the cock-pit and there is nothing to scare the ducks from the decoys until he raises up to fire at them. A man is necessary to pick up the dead birds and a sail boat is used to keep the flocks moving up and down the open water, and also to tow the sink box to and from its anchorage. I give here an outline with dimensions of a sink box in which the shooter can sit down instead of lie down. This I consider the preferable form, especially as the dimensions of the two kinds, outside of the cock-pit, are identical. The timbers are pine, 8x10 inches, halved at the ends and bolted through. The decking is of 1½ inch stuff, tongued and grooved, and the box is of the same stuff as the deck. There is also a movable hatch to the box, which, when locked, makes it absolutely watertight, so that there is no danger of the box filling with water and sinking when not in use. Several hundred pounds of iron is needed to get the box down to the required depth, and therefore iron decoys are used on top of the box. These iron decoys should be attached to wooden decoys, which in case of necessity can be thrown overboard, to serve as a buoy for the iron ones.

In the box, perfectly screened from the wind and waves, nice and dry, the shooter can sit comfortably, surrounded by a hundred or more decoys, and so close to the water that every bunch of ducks coming anywhere near the box will see the decoys and as a rule readily come to them. A person can use a light gun and save both in muscular exertion and ammunition. In fact the sink box is a fine thing in a country where ducks have open waters of large size with shallow bars on the feeding grounds, and where they feed away from the shores at all times. In a sink boat under such conditions one can get a large bag of birds, where in an ordinary duck boat very inferior shooting would be had. The cock-pit should be about 6½ feet long and 12 to 15 inches deep, two feet wide at the top and 20 inches wide at the bottom. These measurements are for the single box to lie down in; the pit need not be so long otherwise. The double box must be enlarged quite a bit in the pit; ballast need not be used when two persons are in the box. A 2½ inch combing should run around the pit above the platform deck, with splash boards as shown; these together with sheets of lead will keep out an ordinary sea.

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THE THEORY OF HANDICAPPING IN GOLF

By Horace Hutchinson

THERE is a peculiar difficulty about getting our handicaps right at golf, a difficulty that is hardly felt in handicapping players of different caliber at other games, a difficulty that arises from the glorious uncertainty of which the game makes its boast, as of a great possession. And a great possession it is, so far as the attraction of the game goes, but to the handicap committee it is just a great big nuisance. The peculiar trouble of handicapping at golf arises from the unfortunate circumstance that some golfers are very much more uncertain than others. Generally the better players are much more certain than the worse—play a more level game and more often play up to their best form. The result is, that if you handicap both classes according to their respective best form, the conclusion is—injustice.

Let us put it in a concrete form, in which it is to be understood more easily. We will suppose that the best form of A, who belongs to the better playing class, is represented by 80, and we will suppose that the best form of B, of a much inferior class, is represented by 100. Then, on this best form principle of handicapping, A would have to give B twenty points. But the way that this would work out in practice would be that A would win at least twice to B's once on these terms, because A, as the better player, far more often plays a game that is near his best form than B does. So handicapping on the best form of each is not a fair arrangement. It favors the better players unduly. "But then," say those who favor the alternative, "if you give the long-handicapped man so many points that he will win as often as the scratch man, then it will happen now and then that he, with his handicap, with luck, and happening to play his best game, will get round in a score that is impossible, humanly speaking, for the scratch man to touch. And it is one of the initial principles of handicapping that you shall not make your long-handicapped man do things which are impossible to the scratch man, such as running a hundred yards in nine seconds or "doing" the hurdles in fifteen. To that the answer merely is that golf is not athletic sports; that you cannot gauge the capacity of your long-handicapped golfer with anything like the accuracy that you can gauge the pace of a runner even of the third and fourth class; and, finally, that you must accept some risks and responsibility, must take the chance of your long-handicapped man going round now and again in a score impossible for your scratch man to equal, because your business as a handicapper, your whole business, and your only business, is to give every one of your field, so far as in you lies, an equal chance of winning the competition for which you are arranging them.

This, as I take it, is the whole theory of handicapping, and the whole duty of the handicapper. It is so simple that one would be inclined to say it was obvious, far too obvious to stand in need of statement. The singular thing is that in Great Britain, however it may be in America, this very simple and necessary rule of handicapping scarcely seems appreciated at all. Of course if you drive any man right back to the grounds of his action and ask him point-blank (as it were with a pistol to his head), "What is your object in making this handicap?" he could scarcely conceivably answer in any other way than by saying the object was to start all the competitors equal. But if we always come back in this way to examine the ground of our actions the world would be a different and a more logical place. The actions, at all events, and the words of the ordinary handicapper, sitting in committee, are commonly entirely at variance with any such logical conception of his functions. All sorts of fallacies parade, unchecked and undetected, in these committee rooms. There is the mathematical fallacy. This is the fallacy according to which a man is penalized a certain number of strokes, say, two for a win and probably one for taking a second place. The fact that a man has won is an index, of course, to his power as compared with the rest of the field, but it is an index that is to be watched with attention and intelligence, otherwise there is no need of a handicap committee at all, after the original handicaps have once been fixed. The fact that the man won is not, in itself, a reason for reducing his

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handicap (the field may have been a poor one, he may have had extraordinary luck, such as holing a full drive), but if the handicap committee thinks (as it probably will think) that the fact of his having won is an indication of his power that makes it probable that he, rather than another, will win at the next competition if his handicap be left unreduced, that consideration at once constitutes a reason for reducing it. It is not because a man wins, but only in so far as his winning is an evidence of his likelihood of his winning again at the same odds, that those odds are lowered. The object of the handicapper is not a vindictive one—not to make it more difficult for a certain man to win in the future than it is for others, because that man has won in the past. It ought not to be any more difficult for him than for the others. It ought to be equally difficult for all. That, really, is the whole theory of handicapping.

Another fallacy is that which may be ticketed with the name of the bogey fallacy. A certain figure is taken as a unit, say 80 for example's sake, in which it is supposed that there is a reasonable likelihood of the scratch men going round the course. Down to this unit all are handicapped, that is to say, are given strokes sufficient to make it equally likely that they, too, may do the course in 80 as their net score. So far there is nothing to be said against this method, but where it is rigidly applied it is common to reduce a man's handicap by the exact number of strokes by which he may bring his net score below 80, and not to touch his handicap even if he wins with a score above this figure. But suppose that the day is very stormy on which he wins with a net return of 80, on a rigid application of this principle he will not be reduced at all, and yet his 80, on such a day, may show him possessed of greater golfing powers than a 75 return on a fair day for scoring.

The truth perhaps is that none of these methods or principles can be followed with cast-iron rigidity and mathematical exactness. If they could there would be no need of the intelligence of the handicapping committee. But the committee needs to have intelligence, and to use it with attention. It is not enough for them to consider the total scores only that are returned. They must examine the cards to see the items—for this reason, if a man returns a score of 80 with steady play indicated by the score at each hole he does not thereby show as much golfing ability (*i. e.*, ability to win at his odds in the future) as a man who has returned the same net score with an extravagant number, say ten, at any one hole.

In order that the handicap committee may do its duty effectively, it is almost essential that it should be composed of golfers of various degree, say a scratch player, a limit handicapped man, and a medium player, for golfers generally are in the habit of playing with those who are something like their equals in power or importance, and with this judicious medley you are likely to get a committee fairly familiar with the form of all the different classes of players in the club. It may be pointed out, too, that the special object of handicapping is generally to put players on an equality in scoring competitions. On many greens in England it has become the fashion to take the handicaps thus settled as the basis of handicapping for match play also. Whereby a certain injustice is done. For there are some players of the flashy, brilliant class whose match playing power is much greater than their ability to return a good score. They will almost always have a few very bad holes in the round, which makes the score mount up, and if the odds to which they really are entitled for scoring be taken as the basis for arranging hole matching such an allowance will put more steady going golfers at a disadvantage with them in match play. It ought to be borne in mind that the handicaps, as usually understood, are fixed for score play only.

And so, enough. The great point to be considered is the forthcoming competition. Results of previous competitions must be taken into your account merely as evidences of what a man is likely to do in the future. The fact that he may have a whole sideboard loaded with plate of his winning is only a valuable indication to the handicapper in so far as it points to this man's ability for future work, and many a man who has never won a prize may want more reduction than he who has won so many. Principles and methods are good as a ground plan to work on, but they must not be followed to the exclusion of present intelligence. Do your very best regardless of clamors to put all your men on an equality for the competition that is about to be played—that, I take it, is the whole duty of the handicapper, the whole theory of handicapping. It sounds absurdly obvious. In practise we find it strangely often ignored.

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THE GREAT WOODCHUCK RACE AT STUBBS FARM

By J. O. Whittemore

IF the Stubbs boys hadn't gone to the Orrinton fair and seen the exciting horse-racing on the three-laps-to-the-mile track, the potato race, the sack race and the pursuit of the greased pig, and numberless other equally blood-stirring events, they might not have been so thoroughly imbued with the sporting spirit and many stirring events in their neighborhood might not have happened.

But they went and are now suffering the consequences. And so are some others.

Sammy Stubbs and Benny Stubbs are bright boys of fourteen, cousins, and live on adjoining farms. They are not bad boys as boys go these days. The day after the fair was a dull one indeed. The common sports paled into insignificance after the great day and they wandered about looking for something new.

About a week previous Benny had captured a woodchuck in a box-trap. It was a young, fat, little roly-poly fellow whose appetite had got him into trouble. Benny quartered his capture in a discarded chicken-coop and as might have been expected named him Roosevelt.

A day or two later, Sammy found a woodchuck in the cellar of the cow-barn into which the 'chuck had fallen and couldn't get out. The 'chuck was driven into a barrel and added to Sammy's menagerie which already included two young foxes, a lame 'coon, two gray squirrels and a large collection of rabbits and guinea-pigs.

Sammy's 'chuck was an old veteran, gray as to his whiskers, long and more gaunt than the average 'chuck in good luck.

And so it was that on the day after the fair the boys met as usual and says Benny:

"What le's do to have some fun?"

"I dunno, what le's," replied Sammy.

"I'll tell ye what le's do. Le's fight our woodchucks. I'll betcher mine kin lick the stuffin' outter your'n;" and Benny's eyes danced with the prospect of some fun at last.

"Lick nothin'. W'y mine kin chaw yours up in no time at all and lick his chops for more. Mine kin—"

"'Nough said. Go git yer 'chuck.'

And the gauntlet was as quickly picked up as thrown and preparations went forward for the catch-weight woodchuck championship of the Back Cove Road. The 'chucks were placed in an improvised arena made of an empty half-hogshead and Roosevelt and Sampson, which was the dignified cognomen of Sammy's champion, urged to battle. But the battle did not materialize. They refused to show a tooth for all the poking or urging and instead of flying at each other's throats, nestled together like old friends and the fight was a fizzle.

The boys were about to play Nero and call in the dogs to eat up the unwilling gladiators when a happy thought occurred to Benny—or it might have been to Sammy.

"Le's race 'em. Mine kin run two rods to your'n a foot."

"Huh! Mine kin run's fast's yourn. One 'chuck can't run no faster'n 'nother, nohow. But we couldn't make 'em fight; how in thunder we goin' to make 'em race?"

Boys are not boys if not resourceful and in a short time the details were arranged.

It was to be a race for life—for the poor woodchucks. Each was to be placed in a barrel on the starting line pointing down the driveway to an old stone wall on the opposite side of the road. Once in that wall a 'chuck was reasonably safe.

It was expected that when the 'chucks were tipped out of their respective barrels they would make a dash for liberty as represented by the stone wall and this would decide the merits of each as a racer.

As an extra inducement to speed it was decided to get Ponto, the big shepherd dog, to bark and make a rush just as the word was given. Ponto was to be tied to a long rope which would let him well down the course but not to reach the 'chucks and spoil the race. This was rather hard on the dog but then he might have the fun of digging the 'chucks out afterwards, so the boys thought.

This was to be a sportsmanlike event. The 'chucks were to be given a chance for their lives and if they didn't run and spoiled

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the fun then Ponto would be let after them.

Ponto was captured, much to his disgust, and securely tied to the bee-hive bench with a long piece of the family clothes-line fastened to his collar and looped around a tree to allow him just scope enough to get within good scaring distance of the racers.

Finally everything seemed to be ready. The 'chucks were in their barrels on the starting line. Ponto seemed to scent the woodchucks and excitement ahead.

"We'd ought t' start this race with a pistol-shot—that's the way they did at the fair," suggested Sammy, or it might have been Benny.

"We hain't got no pistol but my brother Ben's got a shotgun up in his room. It's loaded with shot for apple-thieves—don't believe I'd da'st to fire it," said Sammy.

"Huh! If you don't da'st, I da'st," replied his chum.

That settled it. Sammy would fire that gun if it kicked him over into Waldo county. By considerable manœuvering to avoid embarrassing questions from the people indoors, Sammy secured the gun which was an old timer as big as a small cannon.

This accession made a change in the plans as the one who fired the starting gun couldn't attend to much anything else. It was finally decided that when Sammy fired the gun Benny was to tip down the barrels and pay out on Ponto's hawser, the slack of which he was to hold until the proper moment when Ponto was to be "sicced" on after the 'chucks.

All was ready at last. Sammy rested the gun over the top rail of the garden fence pointing it, as he shouldn't, towards the road, but of course he didn't know that anyone was coming and besides, it was necessary for him to keep an eye on the track to see which 'chuck was the winner.

Meanwhile John Ferguson was coming up the road, driving half a dozen wild and frolicsome young steers who were constantly on the lookout for green fields and pastures new, and were making John no end of trouble. It was not strange that John did not see the artillery in the Stubbs yard, taken up as he was with his steers—and Sammy didn't see John.

The supreme moment arrived. Sammy took a long breath, braced his feet, shut his eyes and pulled the trigger.

At that moment a particularly wild steer bolted into the driveway and John after him, both directly in the race-course. The steer stopped, threw up his head and gazed at the preparations and then—

Bang!

* * * * * * * *

About three mornings after, the semblance of a man dragged itself slowly and painfully up to the store at "The Corner." The sympathetic idlers moved over and with many a groan the man eased himself down with his crutch to a vacant place on the old settle by the door. He adjusted the bandage over his eye with the one hand which wasn't in a sling, and fumbling in his pocket found a small vial.

"Here, John," he said feebly, to the store-keeper, "Fill this up with arnicky, put me up a box of Rooshia salve and a bottle of linement and some flaxseed, and tell Doctor What-his-name that he'd better call once more when he comes down."

The man was John Ferguson, but a few days ago one of the most active men of his years on the river road, now a wreck, battered and bruised without a sound limb and a sorry sight.

"Tell you how it happened? Oh, 'twas turrible, turrible. I fit the rebels from '61 to '65, I've been in all sorts of rows an' scrimmages with men and beasts. I've rassled ba'rs and been upset in stage-coaches; I've fell off 'n barns and down wells and I've been shipwrecked and blown up by dinnymite in my time, but I never had sich a 'speariance as that was. No, I never did, never, never," and he groaned at the recollection.

"Ye see I was a'drivin' up the steers from the medder to the home place. They acted like all possessed, runnin' everywhich-way, into folks's barn-yards and gardens an' when I got up to the Stubbs place I was pretty near tuckered out.

"The most of the critters had got quite a ways ahead o' me 'cept that little brindle an' in he hiked into the Stubbs yard an' I after 'im. I kind o' crept up on 'im, plannin' to give 'im a taste o' my boot for the trouble him an' the rest had made me.

"I didn't see no boys, nor dogs, nor woodchucks, nor bees, nor noth'n'—I was after that dummed steer. An' then—oh Lord—"

John's feelings overcame him for a time; shifting to an easier position he went on:

"First, I thought I was struck by lightnin'. There was a turrible blindin' flash and crash an' fire, an' smoke and brimstun

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and somethin' whistled 'round my ears. I was kind o' stunned and went down on all fours like, my eyes full o' smoke an' dust an' before I could open 'em, that dummed steer come into me like a train o' cars.

"He was scairt out o' his wits if he ever had any, an' I don't wonder at it. He knocked me down flatter'n a flounder and every one of his huffs gowelled into me till I thought I was killed sure. Oh 'twas turrible, turrible.

"I see't I wasn't dead and kind o' riz up on all fours an' tried to git my eyes open agin, when what should I see comin' for me but a hull menagery of wild beasts. There were two bufferlers—I took 'em to be—comin' head on, full tilt and after them a turrible, big wild critter with mouth wide open an' big teeth an' bloody jaws, so I thought, for I was kind o' bewildered like.

"Think's I, my time has come now. I have escaped bein' struck by lightnin' and trampled to death by a steer but now I'm goin' to be chawed up by wild animils. But that wa'n't the worst of it. One o' them bufferlers took me for a cave o' somethin' and run right under me while the other sheered off. But the wild thing behind took after the bufferler which had tried to burrow a hole in me and come whang-bang right into me, yessir, an' such a turrible time ye never heard tell of.

"Wall, pretty soon I sensed what they was, a dog a'chasin' a woodchuck an' th' dog bound to git 'im'. I scrambled up an' tried to git out o' the way but that dum dog had a long rope hitched to 'im and he kept a runnin' round me an' a tree I was clost to and pretty soon I was bound up in that rope to that tree like a Injun victim to be homytalked and burned to the stake.

"Oh 'twas turrible, turrible—an' no laffin' matter, neither.

"An' then the bees come. Oh, dear, that was the worst of all. Then I thought I would give up an' done with it. Oh, them bees, them bees." And the old man's feelings overcame him as he soothed his many wounds.

"How'd I git out of it? I don't adzactly know. I remember that Lem Jordan come along and cut me clear from the tree an' loaded me into his wagon and carried me home like I was a bale o' hay. The neighbors have been c'lectin' them steers ever since. The bees kind o' got after the steers too, I guess. They've found some of 'em up in Eddington, a couple over'n Dedham an' I hear there is a brindle steer waitin' for an owner in the Aurory pound, an' I don't care if there is.

"But they is a day of recknin' comin' —a day of recknin'. I'm a peaceable, law-abidin' citizen an' I pay my taxes an' I haint been peppered with rock-salt, bunted by a steer, run over by woodchucks and tied up by dogs an' most stung to death by bees for nothin', no sir-r-r-r."

* * * * * * * *

There was a long period of deep disgrace for the boys. Sammy was slightly the better off because the dislocated shoulder and broken collar-bone which the old gun gave him awakened the sympathy of his good old-fashioned mother. Benny, who got off with a few bee stings, was sentenced to pull every bean on the Stubbs place which meant work early and late and holidays, although he tried hard to explain that they didn't s'pose that Ponto would pull hard enough on his rope to upset the bee-hive bench and if they had seen Mr. Ferguson they wouldn't have started the race until he got by.

But however good their intentions were Mr. Ferguson was on the track when the race started. The steer was the first to retreat before the woodchucks running for dear life with the dog after them and that he should knock Mr. Ferguson down was merely an accident. People who get on race-tracks must expect to get run over.

Sammy's sporty Uncle John interviewed Sammy on the events of the race. The boy had little to say. When the gun went off he was knocked nearly senseless and lost all interest in the race.

Benny's version was something like this;

"When the gun went off I tipped the barrels an' the 'chucks rolled out an' started to run for the stone wall. Ponto he see 'em an' they see Ponto an' then there was some tall hyperin'. I couldn't hold Ponto an' I leggo the rope an' he was goin' so fast that he took bee-hives an' all. Then I see the steer buntin' Mr. Ferguson an' then—an' then the bees come an' I forgot to see which woodchuck won the race.

"I don't care much an' I guess Sammy don't, either."

And sporty Uncle John grinned.

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FOOTBALL DEVELOPMENT IN 1901

By Walter Camp

THE season of 1901 in football has in it a greater mixture of elements than any season for the last decade. The tremendous superiority of the Yale team of 1900 as evidenced by her overwhelming defeats of Harvard, Princeton and the Indians in the last three Saturdays of her season has in the way of sustained performance hardly been equalled by any team either from Yale or elsewhere. Harvard, if one throws out the Yale game, also had a most encouraging season, especially in the way in which her play proved effective in the defeat of Pennsylvania. Pennsylvania, like Harvard, if one game could be thrown out, namely, her Harvard game, might be well pleased with the year. But Princeton had a disastrous time of it, being defeated by Cornell and Columbia. Cornell later suffered equally depressing defeat at the hands of Lafayette. This condition of affairs must be understood to appreciate the points at which the various teams start off this season.

Yale has not to look for any different style of play. Comparison of her records of 1899 with those of last season, proves that with the same team as in 1899, barring two positions, with her new method of attack, she could turn defeat into phenomenal victory. But the problem that stares Yale in the face, is that of perfecting another set of men in that same style of attack, and at the same time making the necessary additions and alterations required for a back field of different speed. Her last year's captain, who was expected to follow along the traditional footsteps of his predecessor, and come back to act as head coach, finds it impossible to carry out this programme. This of itself makes a break in what has been, under the new régime, considered as an established principle in Yale athletics. The development of the tackle back method of assault, which even in its crude state had proved so powerful, would have been comparatively simple under expected conditions, and with plans outlined by the Yale leaders during the winter.

Whether Captain Gould can, under the adverse conditions, and with the new material, bring it to a point of November effectiveness, is a problem. Legitimately, the method should by the end of this November, have two more outlets or variations, enabling the team using it to anticipate the discoveries of some of its chief features naturally made by the opponents who faced it in 1900. How much did Harvard and Princeton, and the body of their coaches, learn of it in facing it and watching its operations? Harvard's long end run, which was good for many gains in the Yale game of 1899 was wholly ineffective in 1900, because Yale had perfected a defence which cut off Sawin's interference and forced him into the Yale end unprotected. Pennsylvania's "guards back," which a few years ago was unsolvable by Harvard, proved through its frequent and undisguised and unaltered repetition exactly what Harvard with added experience and knowledge could best grapple with and make powerless. That is the history of many of the varying methods of attack adopted and carried out without sufficient alteration. If Yale can avoid this by variation of the play, her team can use "tackle back" for this year and two or three more. Princeton's wide end swing with line interference, which enabled Reiter to skirt Yale's end two years ago, not only when he made his magnificent run of two-thirds the length of the field, but also in making several shorter runs, was sufficiently diagnosed by the men who faced it and suffered by it so that last season these men prevented its recurrence, exactly as a number of years ago her team learned to stop certain end runs and tackle wedges.

Harvard, on the other hand, while enjoying a good many things which Yale has not, must face at the very outset the proposition that the Yale method of attack last year was far more modern and effective than anything the Harvard team displayed at any time during the season. In defensive work Yale has in the long run usually outclassed Harvard, and when Harvard has proven victorious it has been by

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superiority of attack. Hence, the thinking football men at Harvard must determine upon a more effective method than that displayed by the organization of 1900, or else concede victory to Yale. But Harvard has a promising lot of material, and in Reid a head coach who has had plenty of experience from his captaincy of a successful baseball nine this spring. In Campbell, Harvard has a captain of greater experience than has Yale, and an older man. Harvard has been so successful in meeting Pennsylvania's style of play for the last two or three years, that her management does not worry over that part of the proposition, and her men are privileged to devote their entire attention to the development of a method of attack which shall consistently make ground, and keep that attack at its most effective point until the Yale game is reached. That there is plenty of possibility of this the record of Harvard's methods demonstrates. From the days of the momentum plays down to the more recent end runs and outside double passes, Harvard has always had plenty of novelty, and her teams have seemed able to perfect a new play and really execute it with less practice than almost any of the other teams. This season her kicking game is being brought to the front more as it was when Haughton did the punting so effectively, and if her coaches succeed in combining this effectively with a new run outside tackle Harvard's offence by the end of November will be dangerous.

Pennsylvania has so suffered in football prestige owing to her defeat by Harvard in recent seasons, that some revolution in her system seems advisable to her graduates, and this revolution has taken place in the appointment of a committee of coaches, all, however, subject in a great measure to the control of Mr. George Woodruff. A long and elaborate set of rules have been drawn up to govern this body of coaches, and to determine the extent of authority vested in them. To the average outsider it looks like a very cumbersome and labored plan, which would only be brought into use in case of serious disagreements; and serious disagreements and factions would pretty surely defeat a football team with or without printed rules.

There has been a good deal of criticism of "guards back" play so-called, and it was due to this that this new arrangement has been put in force. No one knows exactly how it will work, but everyone fancies that Mr. Woodruff will be the moving power, and the others his assistants. This should work well unless they differ on some important point, in which case the team would inevitably suffer. Whatever the value of guards back as a play, and outside of the discussion as to whether Pennsylvania used guards back play last year or the year before, it is evident to those who watched the contest with Harvard, that for two years the methods of Pennsylvania in these contests have been ineffective, and a change is necessary if Pennsylvania is to win. The Harvard game will be played at Philadelphia this year, and early in the season. Pennsylvania plans to make a *coup* at that time, and with the veteran element in a great measure swept out, a radical change in system so as to stand a chance to defeat Harvard is more possible than it has been for some seasons.

Princeton under her last year's captain, but with a distinctly aggressive force of her best coaches, and with an excellent array of very promising, although comparatively inexperienced material, is working this season to retrieve the disasters of 1900. But neither the game with Columbia or Cornell counts for very much in comparison with the game with Yale. That is the meeting toward which the coaches are devoting their thoughts. Tackle wedges and heavy interference for an end run are Princeton's best methods of attack. With the kicking force at captain Pell's disposal much will be made of the punting, particularly in the way of getting the kick off unexpectedly, and so placing it that the ends shall have an excellent chance of securing it if the opponents are not fully prepared. In defensive work Princeton is preparing to present to Yale's tackle-back formation a front that shall not tend to disintegration and separation under attack, which was the weakness last year. Those who face the Princeton team this year must reckon with an array of talent in the Princeton coaches which has not been gathered there for a long time. More than that, Princeton is alert to the necessity of a speedy recovery after such a downfall. Her teams, her institution, her graduates, all stand together strongly in adversity,

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and this will be brought out exceptionally well this year.

Cornell also has a new policy to outline. To have a team show such excellent ability as Cornell elevens have for the last two or three years in mid-season, and then fail to get even a satisfactory showing in the contest with Pennsylvania at the end has become unbearable. Cornell played a remarkable game two years ago against Columbia in New York in mid-season. Cornell defeated Princeton 12 to 0 last year at the same period, but in both these years Cornell was simply a "mark" for Pennsylvania at the end. This the men at the helm in Ithaca propose to alter, and many have been the meetings and discussions toward that end. This year Cornell starts out under a new régime, and will bring her team along more slowly, but with a more definite idea as to the final satisfactory issue. The argument is, if Cornell can beat Princeton why cannot Cornell beat Pennsylvania? There is no method in the argument, because Princeton and Pennsylvania do not meet, but nevertheless, it is an interesting one among football men, for when Princeton and Pennsylvania used to meet, the contest was a close one, and it has been impossible to make a partisan of either side in the last few years believe that if a match took place, his own team would not win decisively. Cornell must first learn to stop Pennsylvania's attack. That defense is at present Cornell's weakness is demonstrated annually at Philadelphia. Her attack has at times been remarkably good. This year she is drawing men back of the line as last season and getting good force into the plays. With a perfected defense she stands a chance.

Columbia made a signal triumph last year under the coaching of Sanford by defeating Princeton in New York 6 to 5. The team also played a most creditable game against Yale, being beaten 12 to 6. The contests with Harvard and Pennsylvania were very one-sided. The Columbia team seemed upon these two occasions possessed of stage fright or some incapacitating aberration of mind. Columbia also recorded her usual triumph over the Indians at the end of the season. Sanford has at hand seasoned material, and under his excellent coaching, it ought to develop beyond the point it reached last season. As to the methods adopted, they will not differ vitally from those of last season. Sanford is quite able to adapt plays to individuals and to the uses of his own team and has frequently demonstrated his ability to do this most successfully. For that reason his teams should have a more varied repertoire, if one may call it such, throughout the season than almost any other organization, and in holding some of his back-field over, he has just the kind of material to build strategic play upon.

The Carlisle Indian team is well along on the warpath under the direction of Warner, the old Cornell player, who has for some years coached the Indians. As a drawing card the Indians are losing something of their power, and their development seems to have nearly reached a state of equilibrium. The time was when the Indian team went blindiy and fiercely into the arena, and were ready to go up against anything that the pale faces could devise. Then they used to have their final match with Brown, and it was always in deadly earnest for both sides. That is, the two teams were fairly evenly matched, and each had an equal amount to lose and gain from defeat or victory. Now the Indians have settled down into a more civilized frame of mind where they are looking for an occasional match and reputation rather than the old untrammeled method, which lent them a unique reputation. In spite of the ability of Warner, the Indians did not make much advance last season, and in order to improve further this year they must have some new plays, and discarding those that are well known, take the initiative with some good, strong, close formations. The wing-shift had its novelty but it was fatal to the Indians in New Haven last season and must be replaced.

This disposes of the leading teams in the east although there are many others that could be noted, and who from time to time may prove factors in the equation. Of all these, West Point probably has the best opportunity this year to make an enviable record and to develop her play along the most approved lines. Daly, last year's Harvard captain, has become a cadet there, and his long experience and high quality, ought to make him of immense value to the army organization. At any rate, ever one knows that Daly has displayed marke football activity, and that he ought be able to instil it into the discipline

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ranks which he will have at his disposal at the United States Military Academy. West Point was defeated by Annapolis in a closely contested game, and not only does every man in the Academy at West Point, but also every officer in that arm of the service, look forward to a chance to retrieve their laurels of the previous season, by defeating the cadets of the Naval Academy. With Daly in their ranks, the prospects look bright. Both academies will continue to put forth good teams and may occasionally look higher in their preparatory games. Brown should meet West Point for one of the old time tests between teams of a class. Lafayette has her memories of a triumph over Pennsylvania added to that over Cornell, but as a rule it is not probable that as many upsets will occur as last season. For all that it behooves the big teams to be properly meek at all times lest that pride that goeth before a fall shall cause them to be humbled.

Interest in the sport of football has so grown throughout the Middle West, as on the Pacific Slope, that any institution which does not have a regular coach and a full and complete system falls rapidly behind. Up to two or three years ago general improvement in the play of these western university elevens had been very marked. For the last year or two it has seemed to stop, or at any rate not to be as apparent as formerly. The exception to this rule has been in the case of one or two universities, Minnesota for instance, which last year under the able work of the athletic director, Dr. Williams, turned out a team that disputed with Iowa the credit attaching to a premier position in that section of the country. The Minnesota eleven was a tremendously powerful one, with no man upon it less than six feet in hight, and their work very consistent. Under Dr. Knipe the University of Iowa has been making steady progress and it was believed last season that this was the only team in the Middle West able to match the Minnesota eleven. The University of Chicago played a tie game with the University of Minnesota on October 13th, but their record last season was not up to what it has been in other years. The same, as far as progress was concerned, is true of Michigan, as well as of Wisconsin.

d Minnesota both depend upon con-
a mass of men quickly at a certain
all the power and weight possi-
Wisconsin attacks more after the order of the open play. Michigan had a long end run with tackle wedge, and Chicago double passes and more involved plays. This year each will go along its own accepted lines, and for that reason it will be of especial interest to watch developments and see whether eastern teams can learn anything from the trend of affairs in the Middle West.

For a year or two past, however, Iowa has been the most interesting eleven in the middle western section on account of her steady advance. Games with the better known teams, like Michigan, Chicago, and Wisconsin had not been frequent enough to give a sure measure of the quality that Iowa was developing. But lately the new star seemed likely to eclipse some of the older ones. Last season a notable contest with Michigan coached by Lea, well known to all as one of Princeton's most able former captains and tackles, made Iowa's reputation and caliber better known throughout the country. This match was played at Detroit on November 10th. Neither team had been defeated and the greatest interest prevailed in the contest. Iowa won with startling ease, making 28 points to Michigan's 5. Within three minutes of play Iowa had secured a touchdown and rolled up seventeen points in the first half. But the real development of Iowa was measured by her strategic ability in presenting an unexpected line of attack. Under Knipe her teams had been accredited for some two or three seasons with playing only the old "guards back" of Pennsylvania pure and simple. In this match however, they offered a distinctive line of tackle-attack not radically different from a combination of Princeton's tackle wedge with a modification of the guards back principle. It was too much for Michigan who had anticipated the former Pennsylvania method.

But Iowa having reached the acme of football glory, found Minnesota, a formerly second rated team, fighting their way to the top too, and that with a power unmistakable. These veritable giants were sweeping everything before them. Unfortunately, for a settlement of the issue, the two teams never met, but had they done so, it would have been the contest of the season in that section.

It is under these conditions that the season of 1901 is under full head. Chicago, defeated last year even by one of her supposably easy teams, Northwestern, and

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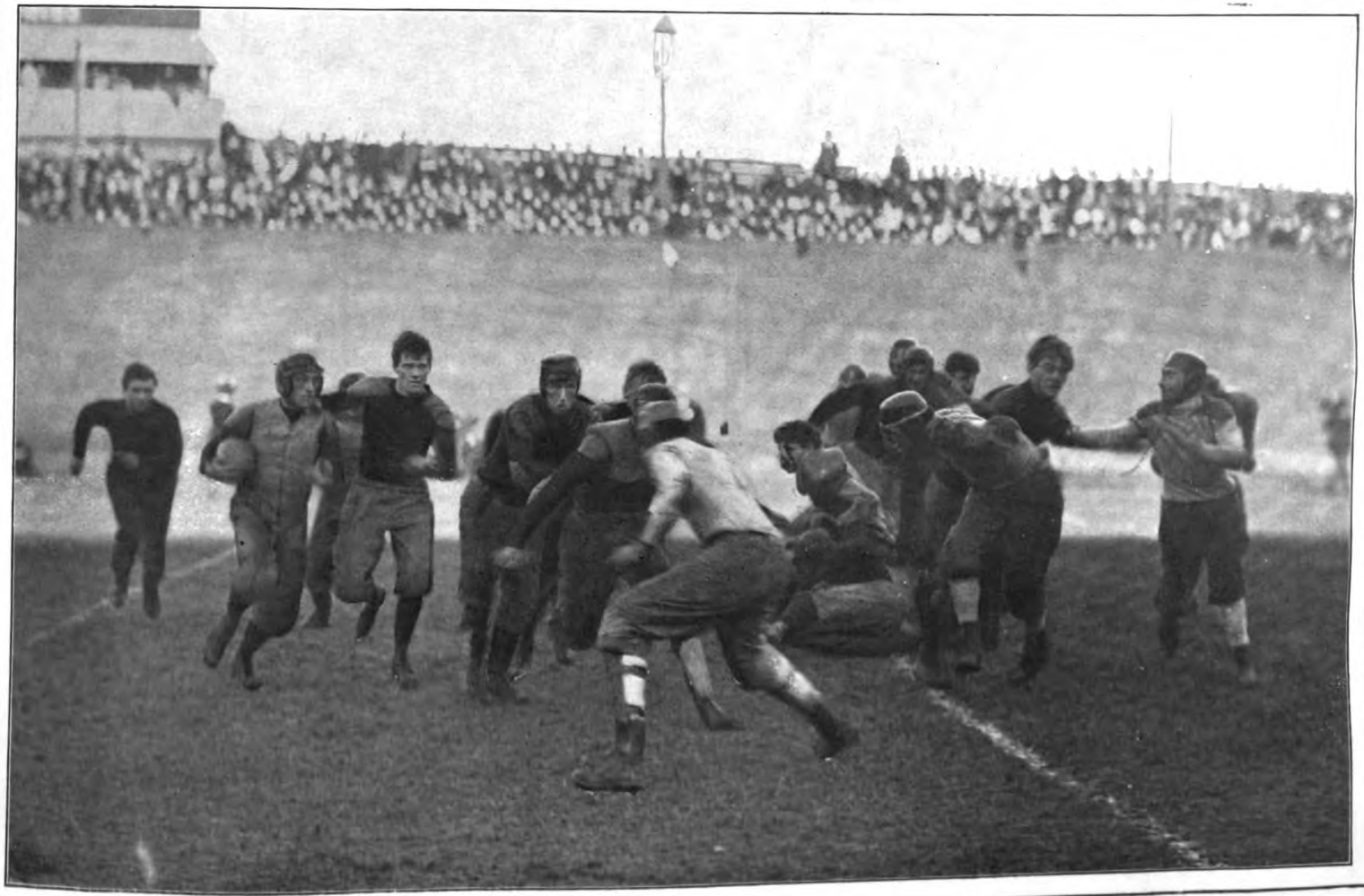

AN END RUN BEHIND INTERFERENCE.

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markedly below her former standards, has much to make up. Stagg must develop a team of greater power as well as one capable of clever plays, in order to hold Chicago's place. This he is trying to accomplish. Michigan and Wisconsin must watch the new lights, Minnesota and Iowa, and learn to meet plays allied to mass formations. This latter pair, if they mean to meet, must study defense or the game will be one of wild scoring. On the whole, no more promising combination of affairs can be imagined for development of method in that section. Kansas and Nebraska are filling up with teams that make issues in their own boundaries. Colorado has all kinds of football and has sent teams as far as California.

Out on the Pacific Coast the same old rivalry prevails between Stanford and the University of California, Stanford winning last year in what proved to be a fairly exciting match. This year, Fickert, the former captain of Stanford, is the head coach, and he has the assistance of more recent Stanford players. This is one of the early steps on the Coast towards breaking up the importation of eastern coaches, and if the men there have learned their lesson properly, they should now be able to handle matters themselves. On the other hand they must develop, or in the course of two or three years simply playing with each other, Berkeley and Stanford will drop back as far in the rear of the sport on the eastern seaboard as they were before the advent of the eastern coach. Their game has been well built up and the change ought not to prove serious, save in the tendency to individual rivalry among the different graduate elements. As long as an eastern coach was engaged it was an easy matter for him to be an actual as well as a nominal head. But there is a tremendous feeling of equality among men born and bred on the Coast and it will not be natural for them, even when they have themselves chosen a leader, to recognize his absolute authority. It is most improbable that the style of play at either university will be markedly altered this season, but whether the game will develop is another question, and one that only a season's actual work can answer.

Taking the sport broadly throughout the country, it was never so well rounded out. As in our tennis, there may be monomaniacs on certain methods, but, as in that game neither the back court player nor the wild net rusher can defeat the all-round player; so, in football the team that has forgotten kicking in a mad concentration upon a new mass attack will lose to the better generaled forces of the adversary who kicks and runs as occasion demands.

It is only natural that the success of tackle back at Yale has brought out a host of imitators and given rise to the further development of the shifting attack. This should and will in the end prove a decided addition to football methods, and its over development will just as certainly cure itself because defeat will follow its overuse. Accurate and longer kicking we must have, and no one knows it more than the coaches in charge at the various institutions. That entails also the better education of end rushers, a point in which there has been a falling off in the past few years.

The one disappointing outlook is the continued necessity of heavy men; for a heavy line is still an essential as it has been for five years or more. But this is on the principle that prevails in so many of the sports that a good "big one" will always beat a good "little one," and no one has yet discovered an effective remedy.

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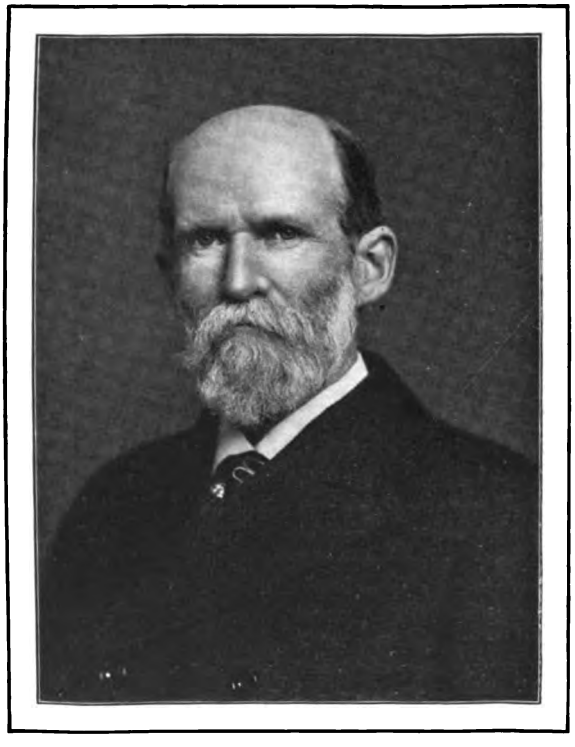
THE EVOLUTION OF THE YACHT DESIGNER

PART II—THE AMERICAN DESIGNERS

By W. P. Stephens

PRIOR to 1870 all American yachts were built from the block model, cut by the builder and followed by him with more or less accuracy through the course of construction. The model was commonly made of a number of pieces of thin board fastened together with screws; after being cut to shape the pieces were separated and the outline of each drawn on paper, giving the half breadth plan of the yacht. From this the body and sheer plans were made and the measurements taken by which the enlarged drawing of the frames was made on the mold loft floor. George Steers, the builder of the schooner *America* and so many other famous yachts, pilot boats, clippers and war vessels, was accustomed to make changes from the original model both on the floor and when the vessel was in frame and ready for the planking, and the same system was followed by builders generally.



A. CARY SMITH.

While the sport took root early in the east and Boston has long been noted for its many bold and skilful yachtsmen and its big fleet of boats, the latter were mainly of small size, the majority of the great yachts of the past having been built in New York and about Long Island Sound. Some of the builders like George Steers and C. & R. Poillon were engaged in the general practice of shipbuilding, including yachts with other vessels. Others, like David Carll at City Island, "Pat" McGiehan at Pamrapo, N. J., Robert Palmer at Noank, R. F. Loper at Stonington, C. H. Mallory at Mystic, D. O. Richmond at Mystic, William Force at Keyport, N. J., David Kirby at Rye, N. Y., J. Voris at Nyack and James E. Smith at Nyack, were distinctively yacht builders. At Boston were two yacht builders in particular, George Lawley & Son and D. J. Lawlor; and at Philadelphia was the firm of Albertson Bros. Outside of the regular yacht builders, who combined both building and modeling, were a few men like the late Captain Robert Fish and Philip Ellsworth both of Bayonne, N. J., who were not regular builders but only cut the models for yachts. Captain Fish was a professional yacht skipper and a very clever one, lacking education but naturally gifted in boat lore; he modeled among other large yachts the schooners *Eva*, *Meteor*, *Wanderer*, *Enchantress*, and *Sea Witch*; the sloops *Oriole*, *Vixen*, *Vision* and *White Cap*; and some of the first steam yachts, *Lurline*, *Emily*, *Lookout* and *Skylark*. Mr. Ellsworth

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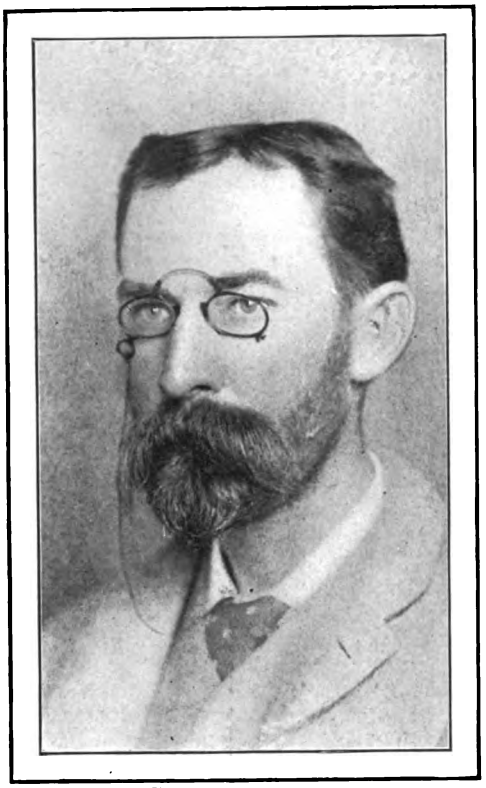

EDWARD BURGESS.

has always been engaged in business, the gathering and shipping of oysters, and has never been connected with yacht building, but he has modeled many noted yachts, among them the schooners *Comet, Grayling, Montauk,* and the sloops *Fanita, Crocodile, Anaconda, Elephant, Kangaroo, Penguin* and *Atlantic.* The small open sandbag boats, jib-and-mainsail and cat, so popular a generation ago, were built by various local celebrities, "Hen" Smedley at Penny Bridge on Gowanus Creek, South Brooklyn, a boatbuilder, "Jake" Schmidt of Staten Island, by occupation a saloon keeper but the modeler, builder and skipper of such noted boats as *Parole, Pluck-and-Luck* and *Dare Devil.*

The late Robert Center, one of the best yachtsmen this country has yet produced, sailed in the schooner *Fleetwing* in her race across the Atlantic in 1866, and spent some time aboard in the pursuit of sport, of course seeing a good deal of British yachting. When he returned to this country in 1870 he brought with him a copy of Marett's book. Mr. A. Cary Smith was at that time making a name as a marine painter after having been engaged with Captain Bob Fish in yacht building. Mr. Center determined to build a keel cutter of iron in place of wood, and sought Mr. Smith's aid. Marett's book, and its then new system of designing on paper by means of calculations and comparisons of elements, was carefully studied and the design of *Musquito,* an iron cutter built in 1848 on the Thames, was taken as a basis for the work; her lines being given by Marett. The design was made and the work of construction started early in 1871 at the shipyard of Reaney, Son & Archbold at Chester, on the Delaware River, afterwards Roach's shipyard. The new project met with opposition and hostility on every hand, from yacht owners, yacht builders and such practical seamen as yacht skippers, pilots and fishermen. The type of vessel, so different

NAT HERRESHOFF.

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from the shoal centerboard sloop of the day, was condemned as wrong in every way; it was confidently predicted that an iron vessel would sink like a stone, and the idea of planning and building a vessel without a model was ridiculed as absurd. *Vindex*, as the boat was named, not only floated, but sailed, and in her many years of good service, being broken up in 1899, she fully justified the faith of her owner and her designer in modern methods. Her success, however, though indisputable from the outset of her career, was merely the beginning of a long and bitter battle between the advocates of the old rule-o'-thumb builder with his model and the professional yacht designer with his plans and calculations. The builders feared and hated the new ideas as calculated to deprive them of their business, and they found supporters in the majority of yachtsmen, who declared their faith in the block model, the wooden hull, the centerboard type of yacht and the sloop rig.

In 1873 Mr. Smith designed for Mr. G. H. B. Hill the schooner *Prospero*, a successful yacht, introducing a much simpler rig, with the single pole bowsprit. In 1878 he designed for Mr. Lloyd Phoenix the seagoing schooner *Intrepid*, a model vessel that is still afloat and in commission after cruising in many distant waters. The question of builder *versus* designer, which by this time had reached an acute stage, was still further intensified by the introduction of a new issue, that of type as embodied in model, rig and construction. A small but gradually increasing number of American yachtsmen were dissatisfied with lack of seagoing qualities, the weak construction and the faulty rig of the centerboard sloops and schooners of the day, some of them in time going to the extreme of advocating outright the British type of narrow cutter with lead keel and the distinctive rig which gave the name to the type. The "cutter cranks," as they were derisively called, launched in 1878 the ten tonner *Muriel*, owned by Mr. James Stillman, now a member of the *Constitution* syndicate, designed by John Harvey and built by Henry Piepgrass at Greenpoint.

The yachtsmen of New York were now divided into two bitterly hostile camps, the larger one supporting the builder and the centerboard type; the smaller, the designer and the keel cutter. Between them were some who favored a compromise on many disputed points. In 1879 Mr. Smith designed for the late J. H. Busk, an Englishman long resident in New York and with American ideas in yachting, the sloop *Mischief*, of what was then called the "compromise" type. She had an iron hull, with less breadth and greater depth of body than the older sloops of her class, retaining the centerboard; her ballast was of lead and stowed very low on the iron plating; her rig included the single jib and laced mainsail of the sloop, its proportions being a compromise between sloop and cutter, and her round pole bowsprit, housing topmast and masthead pendants and runners, with other details, allied her to the cutter. Against her were arrayed in the regular regattas of 1880 and 1881 the representative centerboard sloops of the day, *Gracie*, *Fanny*, *Vision*, *Vixen*, *Hildegarde* and *Arrow*, all built after the old block model method. In the fall of the latter year were sailed the first trial races of the New York Y. C. for the selection of a defender of the *America's* Cup against the Canadian challenger *Atalanta*, all the honors going to *Mischief* with *Gracie* second.

These races mark an important point in the evolution of yacht designing. The victory of *Mischief* over the old sloops was so conclusive as to settle the question of the designer *versus* builder, and it gave great impetus to the spread of the new ideas as to model, rig, ballasting and similar technical points. Late in 1881 was launched the cutter *Oriva*, of 50 feet waterline, in the following year were launched two more cutters, *Bedouin* of 70 feet and *Wenonah* of 60 feet, and in 1883 *Ileen*, the narrowest of all, of 64 feet waterline. These and some others imported took the majority of prizes from the old sloops, *Gracie*, *Fanny*, *Hildegarde*, *Vision* and *Vixen*, and from such "compromise" sloops as *Athlon*, representing the attempts of the old builders to incorporate in a limited way the new ideas.

In December, 1884, there came notice of a challenge for the *America's* Cup from Sir Richard Sutton, owner of the 80-ton cutter *Genesta*, accompanied by a similar notice from Lieutenant William Henn, R. N., owner of *Galatea*, a sister vessel. As *Genesta* was of 80 feet waterline and *Galatea* five feet longer, it became necessary to build at least one new yacht to defend the Cup; the largest existing single-stickers being *Gracie* and

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Bedouin. The commodore and vice-commodore of the New York Yacht Club, James Gordon Bennett and William P. Douglas, offered to build such a yacht and Mr. A. Cary Smith was commissioned to produce an enlarged *Mischief*, a "compromise" sloop with a steel hull, no outside keel, lead ballast stowed inside, a centerboard, and a rig partaking of the proportions of the sloop with some of the details of the cutter. Coming when the sloop and cutter controversy was at its height, the proposed race excited a deep and widespread interest, and the special Cup Committee was deluged with models and suggestions from all quarters. The interest was so far from being local that a party of Boston yachtsmen, members of the Eastern Yacht Club and some of them of the New York Yacht Club as well, determined that Boston should be represented with New York in the defense of the Cup.

But one man, Edward Burgess, was available to design such a yacht, and his qualifications were very limited. Mr. Burgess, born at Sandwich, on Cape Cod, June 30, 1848, was one of six sons of Benjamin F. Burgess, a wealthy merchant and shipowner of Boston. Much of his time at Harvard and after graduation in 1871 was devoted to yachting and to entomology, in both of which he became very expert. He was married in 1877 and for some years Mr. and Mrs. Burgess led a quiet and retired life, his time being devoted to study rather than to society and sport, other than yachting. This was ended by financial reverses which overtook his father, and in 1883 he and his brother Sidney took a small office in Boston and announced themselves as yacht designers and brokers.

In the course of the first two years they booked some eighteen orders, mostly for small cutters such as *Kitty* and *Beetle*, the largest being *Rondina* of 30 feet waterline. Through his social position, his career at Harvard and his membership of the Eastern Yacht Club, Mr. Burgess was intimately associated with Gen. Paine, J. Malcolm Forbes, the Bryants and other prominent eastern yachtsmen, and the first inception of the idea of a Boston Cup defender was ly due to their faith in his ability esire to aid him. The new yacht, was designed by him with the aid l Paine and other practical yachts- of George F. Lawley, the builder, but with little in the way of practical experience in designing or of reliable data on either construction or rigging.

The marked success of *Puritan* in her first meeting with *Priscilla*, the New York defender, in the Goelet cup race of August, 1885, and later in the trial races, her final victory over *Genesta* in September and how she was followed by *Mayflower* in 1886 and by *Volunteer* in 1887, with other sailing yachts, steam yachts, fast fishermen, etc., is a familiar tale which need not be re-told. Mr. Burgess's career was as brief as it was brilliant, he was a tireless and indefatigable worker and a hard student, and the reputation made in the defense of the Cup brought him orders for all classes of vessels. After building up a very profitable business he died on July 13, 1891, of typhoid fever, induced by overwork. Mrs. Burgess followed him in a few months, leaving two children, William Starling Burgess and Charles Paine Burgess. The former, after going through Harvard, has just established himself in Boston as a yacht designer.

From an academical standpoint Mr. Burgess's technical training was limited; he was by nature a naturalist rather than an engineer or a mechanic. At the same time he was exceptionally free and untrammeled for the period in his ideas; his many yachts were built by the leading eastern builders, Herreshoff, Pierce, Lawlor and Wood; he was familiar with the keel type from the exceptional number of small keel sloops in use about Boston, but then unknown about New York; in addition, he had sailed in British waters and was thoroughly familiar with the cutter model and rig.

Where the great majority of New York yachtsmen were committed, almost of necessity, to the defense of the sloop, he entered the field as a free lance, with strong preference for a yacht with some depth of body and a fair range of stability, and a knowledge of what had been accomplished by British designers in the way of safe and non-capsizable yachts. While many circumstances connected with the designing of *Priscilla* limited Mr. Cary Smith in his choice of type, Mr. Burgess was at liberty to choose at will from both sloop and cutter. This he did with rare judgment, producing a yacht of moderate proportions (less breadth and greater depth than the old sloop), with the deep lead keel of the cutter pierced by the American centerboard; in broadside profile

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a cutter, with the sail plan distributed as in a cutter, but with mainsail laced to the boom and without the weak and complicated arrangement of tackles on bobstay and bowsprit shrouds, by which the spar could be housed in heavy weather. According to the unstable public opinion of the day, had *Puritan* been designed by another she would have been repudiated as a concession to British ideas; but designed by a native-born Yankee, who, whatever his personal predilections, was not affiliated with the "cutter cranks," her success carried with it the instantaneous adoption of many principles of design which had thus far been opposed as heterodox by American yachtsmen. Not only this, but the success of an American who was pre-eminently a yacht designer and in no way a builder, who worked from a design on paper and not from the cut model, clinched the long dispute in favor of the trained designer and naval architect as first cause in the production of a vessel.

The work of Mr. Burgess between 1885 and 1891 includes many vessels of all classes, but chiefly yachts. In the large fleet there are hardly any of extreme shoal draft, his preference being for the deep yacht, whether keel or centerboard. Even the yachts intended solely for racing were designed and built with a view to a long life and final adaptability to other use, as nearly all of them testify by being afloat and in commission to-day.

Archibald Cary Smith was born in New York City, one of several children of the Rev. Edward Dunlap Smith. The family came from Philadelphia, Mr. Smith's paternal grandfather being a prominent ironmaster who in his early days, as was then the custom, had gone to sea as a supercargo, and thus imbibed a love of sailing. At the corner of Twentieth Street and Ninth Avenue, near his father's church, stood in those days a pump, the Croton water being still in the future. The would-be naval architect and his young companions were in the habit of damming the street and then manning the pump by turns until a pond was formed of sufficient size to float their miniature craft. As a young boy, Mr. Smith was about the yard where the schooner *America* was building, spending his time at home in efforts to reproduce her in his small models. The desire to build vessels was so strong that he was finally allowed to go over to Pamrapo under the tuition of Captain "Bob" Fish. Under this capable instructor he mastered a good deal of the practical side of boat and small yacht building, of splicing, serving, and practical boat sailing. In the way of higher education in naval architecture he enjoyed one term, at a fee of $25, under Mr. W. W. Bates, one of the old school shipwrights, afterward Commissioner of Navigation. Early in his apprenticeship, Mr. Smith built the 18-foot sloop *Comet*, famous in her day and for long afterward, and later he was recognized as the best racing helmsman and handler of small yachts on New York Bay, no small honor in those days of keen racing. After a time, however, he abandoned both building and sailing, and took up the study of painting, his specialty being marine work and yachting scenes. It was while thus engaged, with no thought of any other future than that of an artist, that Mr. Center returned from Europe and sought his aid in designing and building the cutter *Musquito*. The experience with *Vindex* started Mr. Smith on the career which he has since pursued so successfully; his work from that time being entirely after the now-accepted method of systematic designing and calculation. His work includes every class of yacht from the smallest racing catboat up to large schooners and steam yachts; but his great success has been in his schooners. The first of these, *Prospero*, 1873, was a novelty in her day, *Intrepid*, built in 1878, and *Norna*, a year later, marked a radical change of type in seagoing yachts. *Fortuna*, *Iroquois*, *Ariel*, *Lasca* and the new auxiliary *Genesee*, are all noted for their sterling qualities as yachts in which a man may go anywhere in safety and comfort. The largest of the schooner fleet, *Yampa*, now *Iduna*, owned by the Emperor of Germany for the past three years, has just brought to Mr. Smith an order for a still larger yacht of the same type to replace her. In another field, that of the Sound steamer, Mr. Smith has won the same success as in yachting; the noted steamers *Richard Peck* and the *City of Lowell* were designed by him after the same system employed in his yacht work, and both have proved their superiority in speed, as well as in economy of running, over the other vessels of their class, all produced after the old rule-o'-thumb methods. The long battle which began with *Vindex* and ended with *Puritan* opened the way to a new profession which has since found many followers, and with this change

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[illegible] Massachusetts Institute of Technology [illegible] Naval Academy at Annapolis and the Webb Academy [illegible] in the erection of the [illegible] and elaborate model-testing tank at Washington and in the opportunities and [illegible] now offered to the ambitious student. In view of what has been accomplished of recent years in the defense of the America's Cup by American yacht designers, and the production of successful warships by young American naval constructors, there [illegible] the national supremacy [illegible] in the future by the professional designer than in the days of such builders as Steers, Webb and Eckford.

No complete story of yacht designing could be written without mention of the American designer who has successfully defended the America's Cup four times in succession, Nathaniel Greene Herreshoff, of Bristol, Rhode Island. The history of the Herreshoff family in America dates back to 1790, when Frederick Herreshoff, a Prussian engineer, came to this country and settled in Providence, in time marrying Sarah Brown, daughter of John Brown, then the principal shipbuilder in Rhode Island. He made a home on Prudence Island, near Bristol, then a bustling little seaport. His son, Frederick, born in 1808, was the father of nine children, of these Nathaniel Herreshoff, born in 1848, was the fifth, and learned to sail a boat from his infancy, serving as pilot for his older brother, as the latter became blind. In 1866, he entered the Massachusetts Institute of Technology and on his graduation, three years later, he entered the works of the Corliss Steam Engine Company, at Providence. His experiences in mechanical engineering included a part in the designing and erection of the great engine at the Centennial Exhibition in 1876. As a young man, John B. Herreshoff, the third son, started in business as a boat builder at Bristol, and in spite of his bundness carried it on so successfully that early in the seventies his steam launches, with the Herreshoff compound engines and coil boilers, were famous in this country and abroad. The aid and co-operation of his brother Nathaniel in this work finally led to his abandonment of engine building, and the concentration of his energies on naval designing and marine engineering. For many years the two brothers have formed the Herreshoff Manufacturing Company, designing and building all classes of steam and sailing yachts and torpedo boats. The first successes of the brothers, early in the seventies, were in the line of small open catboats and cabin sloops, a little later came the steam launches and experimental torpedo boats, and then for many years the growing works were devoted exclusively to the production of larger and faster steam craft. All the time, however, Nathaniel had at anchor off his house some small cruising yacht, *Consuelo*, *Clara* or a similar craft, for pleasure and rest afloat. His advent in the field of racing design is due to the victories of the Fife cutter *Minerva*, in 1889 and 1890. He made a close study of this wonderful boat, and in 1891 designed for Mr. E. D. Morgan the 46-footer *Gloriana*, a keel cutter that was original in design and construction in every detail of hull and rig. Following her came *Wasp* in 1892, *Vigilant*, *Colonia* and *Navahoe* in 1893, *Defender* in 1895, and *Columbia* in 1899, *Constitution* in 1901, with hundreds of other racing craft, small and large, most of them successful. A large number have been built for English, French and German owners, winning against the home-built boats in many foreign waters.

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THE SPORTSMAN'S VIEW-POINT

BY CASPAR WHITNEY

Why Columbia Beat Shamrock.

The races between the *Columbia* and the *Shamrock II.* proved native anxiety regarding the safety of the *America's* Cup not to have been without cause, for during the fifty years we have held it, never until 1901 has a challenger succeeded in making the series of contests even interesting. *Shamrock II.* is not only the fastest British yacht to have raced for the Cup, but in fact the only one to have aroused serious apprehension; on that extended list of challengers reaching from the *Cambria* in 1870 down to the *Shamrock I.* in 1899, not one escaped being hopelessly outclassed. Nor is this succession of victories, unprecedented in all the world of sport, explained by any occult process of designing, or building, or sailing. There is no mystery, as I have seen suggested, in the repeated triumphs of the American boats. The reasons are few and simple—skill, adaptability, progression; the talent and enterprise which have served to make the United States a seller, where only a few years ago this country was a buyer in the commercial markets of the world, are the same that have combined to bring victory to the *America's* Cup defenders; the same that have brought this people from political insignificance to be the leading nation on earth within less than one hundred years of intellectual development and industrial activity; small wonder that our yachts, and our athletes, and our steel rails and bicycles and farming implements beat the world. It is the pulsing life of the Young Country.

It was entirely fitting, too, that the first foreign yacht to prove really formidable should come from the designs of Mr. George L. Watson, for he was responsible for the *Thistle* in 1887, and in the period covering his first and last (the fourth) effort to put forth a winning boat, has had ample opportunity and time to study the American models and learn the lesson they told. Had Mr. Watson not been a Britisher, whose disinclination to depart from the ways of their forefathers is inherent and national, he would have progressed more rapidly. Being a Britisher, and a Scotch Englishman in the bargain, he has not been alert in discerning the trend of the modern racing machine, nor in following the way which American designers have been pointing out to him and to Mr. Will Fife, Jun. Mr. Beavor Webb, who designed the unsuccessful *Genesta* and *Galatea*, was shrewder—he emigrated to America.

National Types and Designers.

The *Shamrock II.* shows elements of departure from the English and toward the American racer type, and must be considered a distinct triumph for Mr. Watson, not only because of her lines, but on account of her extremely good performance. Yet this, his last production, shows, after all these *America's* Cup-years of failure, the same unshaken faith in great depth (disproportionate, according to American ideas) of draught. He has become converted to the greater breadth shown by American yachts, but still he clings to a comparatively big displacement.

To compare the dimensions of the yachts which have been raced for the Cup from year to year, will be instructive.

Yacht	Year.	Length Over all ft.	in.	Water-line Length ft.	in.	Breadth ft.	in.	Dr'ght ft.	in.
America	1851	108		94		23	6	10	
Magic	1870	84	6	80	11	20	10	7	10
Cambria	1870	.....		108		21		12	
Columbia	1871	114		99	6	25	7	8	6
Livonia	1871	.....		115	2	23	7	12	6
Madeline	1876	106		95		24		7	4
Countess of Dufferin	1876	107		96		24		6	6
Mischief	1881	68	6	61		19	10	5	4
Atalanta	1881	70		64		19		5	6
Puritan	1885	93		80		23		8	2
Genesta	1885	90		81		15		13	6
Mayflower	1886	100		85		19	6	9	
Galatea	1886	100		86		15		13	3
Volunteer	1887	106	3	85	9	23	2	10	
Thistle	1887	108	6	86	5	20	3	13	9
Vigilant	1893	128		86	2½	26		14	4
Valkyrie II	1893	126		85	6	20	6	16	6
Defender	1895	124		88	5½	23		19	
Valkyrie III	1895	129		88	10	26	2	18	6
Columbia	1899	132		89	8	24	6	20	
Shamrock I.	1899	130		87	7	24	2	20	
Shamrock II.	1901	137		89		25		22	

It is very interesting to note how starting with types absolutely national and widely separated, the models of the two countries

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so far as 90-foot racing machines are concerned, have borrowed from each other and grown closer together, until, to the lay eye, there is not a great deal of appreciable difference between the hulls of the *Columbia* and the *Shamrock II.* But the difference is there just the same; and the very important difference of cleaner lines, cleaner entrance, less draught, less water pushing, less displacement, that make difference between victory and defeat.

Breadth, Depth, and Some Lessons.

Less depth and greater breadth has always been the most perceptibly distinguishing element of the American type as compared with the British; yet the former was quick to appreciate the need of more draught and to add it. Of these two elements alone, perhaps, the American designers have been the most frequent borrowers in this international duel, and with each lending the other something from the native model, there actually came a time, when the designers strayed into the home of the other. This was in 1895 when Dunraven—of abominable memory—made his second attempt to win the Cup.

In the *Defender*, designer Herreshoff not only quite crossed the line which had hitherto divided American from English models, but he ventured far into the foreign field. He out-Englished the English. For the first, and in fact the only time in the history of the Cup races, the American boat was both deeper and narrower, being 23 feet in breadth with 19 feet of draught, as against the *Valkyrie III.'s* 26 feet of breadth and 16 feet 6 inches of draught. The American had taken the Englishman's own type, yet were the *Defender's* lines so masterfully drawn, that, in popular parlance, she was able to beat the challenger out of sight.

Nothing could more forcibly illustrate the English-Scotchman's tenacity (obstinacy) of sticking to old lessons, despite practical experiences showing them to be out of date, than this same *Valkyrie III. Vigilant* in 1893, with 26 feet beam and 14 feet 4 inches draught, had walloped *Valkyrie II.*, 20 feet 6 inches beam and 16 feet 6 inches draught, and no doubt Mr. Watson realized that his yacht needed, if nothing else, at least more beam. At all events he received so convincing a lesson as to make its impression on his next boat, to which he gave a 26 foot 3 inch beam. But right here the shades of his forefathers asserted themselves, and as a sop to his conscience he makes the draught of his new boat 18 feet 6 inches; four feet deeper than the boat, which, on the same breadth dimensions, had outclassed his preceding effort. Herreshoff, on the other hand, satisfied that the unusual beam he had given *Vigilant* is unneeded, convinced of the speed and stability giving qualities in more depth—turns out the *Defender*, beating the Englishman at his own game.

And so the story goes—the story of American initiative and British reluctance to follow where quicker wits lead, and repeated victories pointed the way.

It's too long a tale for here, but at least I have given its scenario.

Two-year-old Columbia Still Good Enough.

That Mr. Watson should finally have created a model to make such close sailing as did the *Shamrock II.* with the *Columbia* this year shows the lessons of 1887 to 1895 to have had abiding if not immediate effect. True, the Fife *Shamrock I.* and the *Columbia* were nearest together in dimensions of all the yachts which have raced for the Cup, being each 20 feet in depth, and 24 feet 2 inches and 24 feet 6 inches, respectively, in breadth; but their nearness ended at dimensions—in speed no two have been farther apart in recent years.

It should always be remembered in comparing the *Columbia* and the *Shamrock II.* that the defender of 1901 was also the successful defender of 1899, while the challenger of 1901 was newly created. In other words Mr. Herreshoff apparently reached his limit two years ago while Mr. Watson improved immeasurably upon his own previous work and upon the ugly first *Shamrock* for which Mr. Fife was responsible. To put it another and a more pleasing way —America was two years ahead of England in 90-footers.

Shamrock II. is a bigger boat than the *Columbia* and she gives the impression of being larger than she really is with her fuller lines and upper body let farther down than that of the defender. It was possible in the same morning, before the races, to go from the naked body of one to that of the other as revealed in dry dock, and the difference in their models was impressive, not in dimensions or in type, but simply in the shaping of the lines. Those

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of the *Columbia* are the exquisite refinement of the racer—beautiful, clean and orceful. *Shamrock* in comparison suggests more of the brute, yet her lines, too, are very fine, and very full, the latter being an innovation from an English point of view, and without an angle. In one respect Mr. Watson made an exceeding bold departure, as a result of his tank experiments—he put the greater deck breadth of his boat at the shrouds, which is half a dozen feet farther forward than the *Columbia's* extreme beam, and in fact nearer the bow than was ever before attempted in a 90-footer. This was of course in recognition of the well-known fact that logs tow easiest butt end foremost. But this is true only in still or very smooth water, and the form thus resulting is not a speedy one in roughish waters—as the little we saw of the late challenger in such conditions proved.

Comparative measurements:

COLUMBIA.	Feet.
Length of load waterline	89.77
Length from after end of main boom to bowsprit end	182.87
Fore side of mast to forward point of measurement	73.86
Spinnaker boom	73.30
Main gaff	64.94
Length of topmast, 64.64 feet, minus one-fifth	51.71
Upper side of main boom to the topsail halyard block	134.74
Square root of the sail area	114.94
Sailing length as per rule	102.35
SHAMROCK II.	
Length of load waterline	89.25
Length from the after end of the main boom to the end of the point of measurement or the end of the bowsprit where the jib topsail halyard block is fastened	184.03
Fore side of the mast to the end of point of measurement or end of bowsprit, as above	78.28
Length of spinnaker boom	78.28
Length of main gaff	66.17
Length of topmast, 68.18 feet, minus one-fifth	54.54
Upper side of main boom to the topsail halyard block	143.39
Square root of sail area	118.33
Sailing length, as per rule	103.79

The *Shamrock* spreads 14,027 square feet of canvas and the *Columbia* 13,211 feet. But the challenger's official figures would read nearly 300 square feet more save for Mr. Watson's clever rigging of the peak halyard blocks, which saved her being taxed that much, and very materially reduced her time allowance to the defender from a possible minute to an actual 43 seconds. The *Shamrock's* forward triangle of sail measures 5,622.38 square feet and the *Columbia's* 4,981.94; the after triangle, *Shamrock* 8,404.62, *Columbia* 8,229.16 square feet. Thus the challenger had every advantage in power—larger head sails for reaching, a bigger balloon jib and spinnaker for running, and although only about six inches shorter on the water line on an even keel, the *Shamrock II.* increases her length when slightly heeled and much more quickly than the *Columbia.*

Thus on paper the *Shamrock II.* is most formidable—indeed appears a winner.

It is good news that the *Shamrock* will race here next year, for though we are convinced of the *Columbia's* superiority, we want to see by how much the *Constitution* will win from the *Shamrock* in light airs. We want, too, to see the *Constitution* given a real trying out. I believe, and I am not alone in my belief, that the *Constitution* is from three to five minutes faster than the *Columbia* in light airs. Something undoubtedly was the matter with her management this season, the particulars of which remain untold.

Boat for boat, without counting the time allowance due the defender, *Columbia* beat *Shamrock* 3 minutes and 29 seconds in the ninety miles represented by the three races; on official corrected time the challenger was beaten 5 minutes and 36 seconds. This indicates how evenly matched the two boats are. The *Columbia* was the better sailed, especially in the last race, in which it seemed as if the challenger's skipper failed to make the most of his opportunities. One curious revelation of the racing was that the challenger appeared to do her best work on the port tack. *Columbia* was handled to perfection, for which great credit is reflected upon the skill of skipper Barr and the good judgment of Mr. E. D. Morgan, the managing owner.

The *Columbia* won simply because of her finer lines and the more skilful handling she received. There is no more doubt of the wherefor than of the unqualified success; and I dwell on this fact only because I have observed a disposition in some directions to credit the victory of the defender to Yankee "smartness," which, to be sure it was in the best sense, though not in the sense suggested by some commentators.

Conditions Favorable to Shamrock's Best Work.

It will always be a pleasing reflection for American sportsmen, that, throughout the greater part of the 1901 series, the challenging yacht was favored by weatherly conditions confessedly to her liking, while on the other hand the successful defender at no time had

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the kind of air and water in which she has shown her best work. Under the conditions best suiting *Shamrock*—a smooth sea and breeze ranging from very light to not above ten knots—the challenger is a very formidable boat, and a long way the fastest drifter yet to have visited us. With any jump to the sea however, and the air light, she lost speed quickly. Mr. Watson designed her for a light weather boat, and as such she undoubtedly is fast, no doubt she would be faster, certainly in a sea-way, had he put her greatest breadth farther aft. The *Columbia's* light weather work is not her strongest point of sailing; yet she triumphed in such weather.

THE *AMERICA'S* CUP SERIES, 1901.

Best three out of five races—*Shamrock* allows 43 seconds in thirty miles.

FIRST RACE—SEPTEMBER 28—(15 miles to windward and return.)

Boat.	Start. H. M. S.	Outer Mark. H. M. S.	Finish. H. M. S.	Elapsed Time. H. M. S.	Corrected Time. H. M. S.
Columbia	11:00:16	1:25:53	3:31:23	4:31:07	4:30:24
Shamrock	11:00:14	1:25:12	3:31:58	4:31:44	4:31:44

The *Columbia* wins by 1 minute and 20 seconds—corrected time.

The sea was smooth and the wind held true at a strength of about 8 to 10 knots. The *Shamrock* did her best work turning to windward, gaining 39 seconds, while the *Columbia* gained 1 minute and 16 seconds on the run home, much to general surprise, as the *Shamrock's* nearly 1,000 more square feet of canvas gave her such advantage that it was expected she would prove the winning boat running before the wind in a flat sea. This exhibition provided evidence so conclusive of the finer lines of the *Columbia*, and of her so much easier form to drive that it satisfied me there and then of her ability to keep the Cup on this side; and my faith in her was never shaken thereafter, even by the *Shamrock's* exceptionally good sailing during the remainder of the series.

SECOND RACE—OCTOBER 3—(30 miles over triangle—10 miles to a leg.)

Boat.	Start. H. M. S.	First Mark. H. M. S.	Second Mark. H. M. S.	Finish. H. M. S.	Elapsed Time. H. M. S.	Corrected Time. H. M. S
Columbia	11:01:47	11:52:22	12:46:39	2:15:05	3:13:18	3:12:35
Shamrock	11:00:13	11:51:10	12:45:57	2:16:23	3:16:10	3:16:10

The *Columbia* wins by 3 minutes and 35 seconds—corrected time.

The sea was flat for two-thirds of the journey and a good smart breeze of about 12 knots, held true for the greater part, increasing to about 15 knots on the last half of the last leg. The yachts reached the first two legs close hauled and beat the last leg. The challenger had been proclaimed a wonder on a reach, close or broad, with the wind blowing fairly fresh and uniform. Those familiar with the defender, knew her for a racer, with sheets started ever so little, in any kind of weather. *Columbia's* superiority was made manifest early in the race, while her work to windward, in a breeze gaining strength, and tiny white caps dotting the sea, was remarkable. She gained 22 seconds on the first leg, 30 seconds on the second leg, and 2 minutes on the third leg. Over the 30 miles the *Columbia's* average speed was 6 minutes and 23.6 seconds a mile; which is 8.73 seconds faster than the average pace the *Shamrock* maintained.

THIRD RACE—OCTOBER 4—(15 miles to leeward and return.)

Boat.	Start. H. M. S.	Outer Mark. H. M. S.	Finish. H. M. S.	Elapsed Time. H. M. S.	Corrected Time. H .M. S.
Columbia	11:02:00	12:49:35	3:35:40	4:33:40	4:32:57
Shamrock	11:02:00	12:48:46	3:35:38	4:33:38	4:33:38

The *Columbia* wins by 41 seconds—corrected time.

The sea was absolutely flat, with a wind which, at the beginning and for perhaps half of the race, maintained a strength of 9 to 10 knots, but it lightened for the turn to windward and grew somewhat fitful in the latter half of the last leg. It was again the *Shamrock's* weather and if she had been so cleverly handled as was the *Columbia*, the chances are even that she would have won the race. In the run before the wind the *Shamrock* gained 49 seconds, which meant that as she started 13 seconds behind the defender she had, boat for boat, beaten the *Columbia* 1 minute and 2 seconds

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in the 15 miles of running. In the beat to windward the *Columbia* gained 47 seconds. On corrected time the *Columbia* beat the *Shamrock* 41 seconds; on elapsed time the *Shamrock* beat the *Columbia* 2 seconds. Both yachts crossed the starting line after the handicap gun, so that their time began from the expiration of the two minute limit, regardless of their respective times of crossing the line; but the challenger crossed 13 seconds later than the defender, so that in actual elapsed time the *Shamrock* sailed the 30 miles 15 seconds faster than the *Columbia;* had the challenger therefore got an even start, she would have lost the race by 26 instead of 41 seconds corrected time. It was the most exciting finish in the history of the Cup and one unique in these international races; for never before had there been no open water between the defending and challenging boats at the finish.

E. D. MORGAN.

SUMMARY OF THE *AMERICA'S* CUP RACES.

Aug. 22, 1851, America beat Aurora 18 minutes.
Aug. 8, 1870, Magic beat Cambria 39 minutes 12.7 seconds.
Oct. 16, 1871, Columbia beat Livonia 27 minutes 4 seconds.
Oct. 18, 1871, Columbia beat Livonia 10 minutes 33¾ seconds.
Oct. 19, 1871, Livonia beat Columbia 15 minutes 10 seconds. (Columbia was disabled.)
Oct. 21, 1871, Sappho beat Livonia 33 minutes 21 seconds.
Oct. 23, 1871, Sappho beat Livonia 25 minutes 27 seconds.
Aug. 11, 1876, Madeline beat Countess of Dufferin 10 minutes 59 seconds.
Aug. 12, 1876, Madeline beat Countess of Dufferin 27 minutes 14 seconds.
Nov. 9, 1881, Mischief beat Atalanta 28 minutes 20¼ seconds.
Nov. 10, 1881, Mischief beat Atalanta 38 minutes 54 seconds.
Sept. 14, 1885, Puritan beat Genesta 16 minutes 19 seconds.
Sept. 16, 1885, Puritan beat Genesta 1 minute 38 seconds.
Sept. 9, 1886, Mayflower beat Galatea 12 minutes 2 seconds.
Sept. 11, 1886, Mayflower beat Galatea 29 minutes 9 seconds.
Sept. 27, 1887, Volunteer beat Thistle 19 minutes 23¾ seconds.
Sept. 30, 1887, Volunteer beat Thistle 11 minutes 48¾ seconds.
Oct. 7, 1893, Vigilant beat Valkyrie II. 5 minutes 48 seconds.
Oct. 9, 1893, Vigilant beat Valkyrie II. 10 minutes 35 seconds.
Oct. 13, 1893, Vigilant beat Valkyrie II. 40 seconds.
Sept. 7, 1895, Defender beat Valkyrie III. 8 minutes 49 seconds.
Sept. 10, 1895, Defender awarded heat, Valkyrie III. disqualified, infringement racing rules. Although damaged by collision with Valkyrie III., and having no topmast support on starboard side, so that on this tack she could use only her lower sails, yet Defender sailed the course and crossed the finish line second by only 47 seconds, corrected time.
Sept. 12, 1895, Defender had a walkover. Valkyrie III. withdrew after crossing the line.
Oct. 16, 1899, Columbia beat Shamrock I. 10 minutes 8 seconds.
Oct. 17, 1899, Columbia sailed over the course alone Shamrock I. being disabled soon after the start.
Oct. 20, 1899, Columbia beat Shamrock I. 6 minutes 34 seconds.
Sept. 28, 1901, Columbia beat Shamrock II. 1 minute 20 seconds.
Oct. 3, 1901, Columbia beat Shamrock II. 3 minutes 35 seconds.
Oct. 4, 1901, Columbia beat Shamrock II. 41 seconds.

Some Lessons For us Also.

There was another international contest just before the Cup races began which also had its lessons; and one of them could be accepted by Americans profitably, not for the mere winning, perhaps, but in the normal, wholesome conduct of our college sports. Nor am I one of those who believe the English athletic way to be the only way, and ours all wrong. I would not

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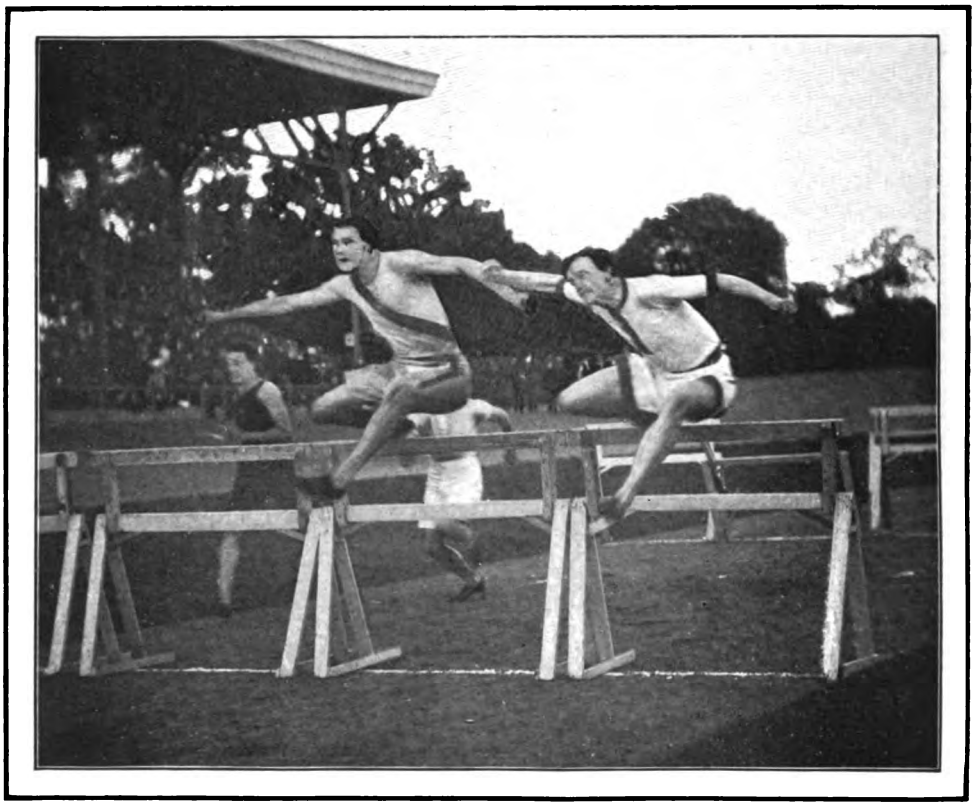
have the American lose one particle of his earnestness during either the preparatory period or on the day of trial; I would not exchange his ardor or his gruelling efforts to win for the comparative athletic dilettantism of the Englishman. I want him to take his preparation seriously, to scourge the flesh and to contest the issue till he drops in his tracks, or lands the victory.

But I do not want him to feel, as the average American does, that victory is the end and all of athletic endeavor. Who is it that so truly has said:

"'Tis not the victory that makes the happiness of the noble heart; 'tis the combat."

I wish this sentiment might be engraved over the portal of every university gymnasium in America. Still better, were it the honest sentiment of every faculty member —for after all do we not expect rather too much of undergraduate adolescence?

We need more of the element of sport in our games, more good fun, less of the highly specialized performer and less of business. We can make the gains without losing a bit of our stern preparation, or our earnestness in the struggle for success. I would abolish the professional trainers and the even brief periods of preparation before college opens, for games played in term time. The mental attitude of English and American college men toward their sports is similar; but the practical temper of the Englishman remains amateur while that of the American becomes professional. How much would the skill or the records of American games suffer without professional trainers and coaches? So little as to be insignificant. Yale crews and elevens have been brought to their supreme contests without the aid of professional talent, and no one will deny that they stand in the foremost competitive rank; professional coaching has done little for college baseball, and the track rec-



Converse. (Harvard) Garnier. (Oxford)

THE LAST HURDLE OF THE RACE BETWEEN CONVERSE AND GARNIER IN THE ENGLISH-AMERICAN UNIVERSITY SPORTS.

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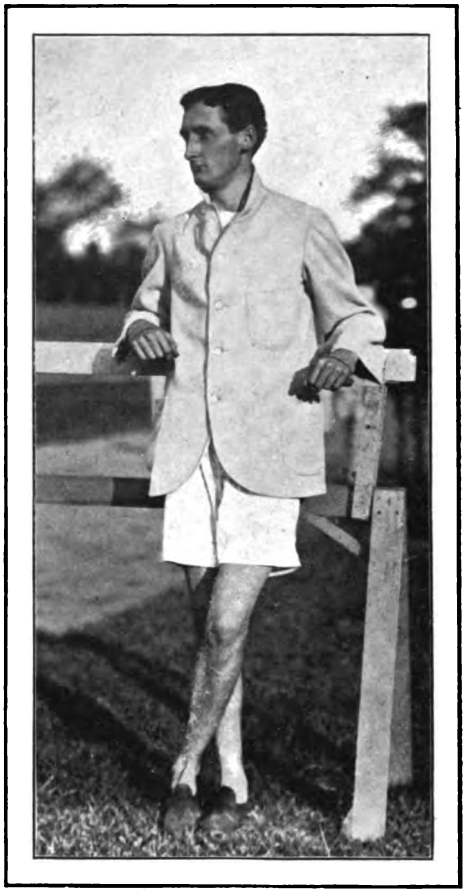

REV. H. W. WORKMAN, F. G. COCKSHOTT,
TWO FAMOUS CAMBRIDGE UNIVERSITY RUNNERS.

ords were made by the men—not by their professional trainers.

This is the lesson we can learn from England, without sacrificing any of our national zeal for winning—that amateurs should be prepared for their games as though they were sport and not a profession.

Harvard-Yale Oxford-Cambridge. The Oxford-Cambridge track team came over unaccompanied by professional trainers, rubbers or special cooks; it defeated McGill University in a dual meeting at Toronto, and then came to New York, where at Berkeley Oval the men kept fit for their meeting with the Harvard-Yale team. Meanwhile the Harvard-Yale team, assembled earlier, prepared under the watchful eyes of two professional trainers aided by the customary rubbers. The Americans won by 6 to 3 events, but if the performances of all the athletes competing were reduced to a comparative scale, as in our All-round Individual Athletic Championship scoring, it is likely that the visitors would make an equal if not a better showing, for while in three events—the half mile, one and two miles—the English winner entirely outclassed the field, the Englishmen were outclassed only in the hammer, and had the material to make good contests in all the other events. They had the hard luck of losing their broad jumper, a very likely winner, through the twisting of his knee, and their high jumper, made obviously nervous by the proximity of the competition to a grand-stand, was unable to equal his best performance—half an inch better than the mark at which the event was won. As it was, the visiting team won 3 firsts, 5 seconds, 5 thirds and 5 fourths to the 6 firsts, 4 seconds, 4 thirds and 2

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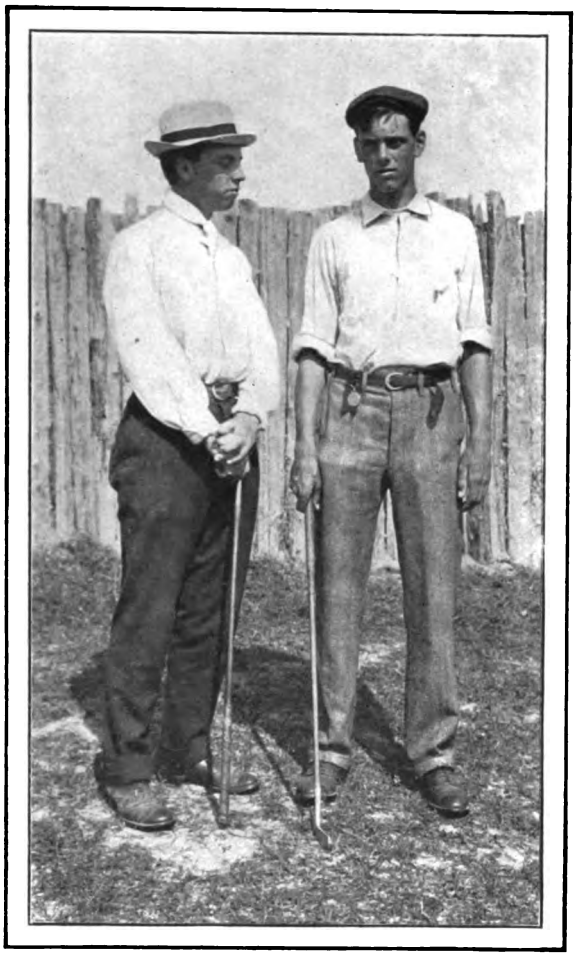

Walter Egan. Wm. Holabird, Jun.

TWO YOUNG WESTERN GOLFERS OF NOTE.

fourths of the victors, or, according to our method of reckoning in the Intercollegiate championships, (5 for first, 3 for second 2 for third and 1 for fourth places)—Harvard-Yale scored 52 to 45 points by Oxford-Cambridge. I have no doubt that on their grounds or on any neutral field, the English team, with all its members fit, could have won the contest by 5 to 4—for the team had the timber to accomplish it. But that, of course, is beside the facts; they were beaten, and fairly.

It was evident by their form in some of the events that these international contests, of which this was the fourth (See Notable Performances and Records), have not been, aside from their mere outcome, without profit to the Englishmen. They have been adopting American style and it has bettered their performances materially. In hurdling, for example, their form has greatly improved, while in the high jumping their best man, Smith, went over the bar in as near the American style as he could master, which was pretty near. The hammer man, too, used the American handle in place of the stiff, awkward one formerly in vogue.

The meeting was conducted as well as could be, but there was convincing evidence that events of such important character should be held in a city where abundant police assistance can be had. In several small yet attractive ways the meetings between the English and American Universities held on American grounds are always second to those held in London; there is, for example, the happy custom in London of decoration, and the two staffs flying the flags of the competing countries, raised to announce the winner.

The Berkeley Oval meeting was quite lacking the *eclat* which has distinguished those held at Queens.

Writing of the improvement in English athletic form reminds me, that the Canadians have also shown a gradual betterment of performances, this year's championship giving a higher average of style and time than any previous meeting which had no stars and depended on the rank and file. There is splendid athletic material in Canada and a fine lot of fellows; as time goes on a fair proportion of our national championships should fall to them.

A Warning to the Polo Association.

Although it has been a very satisfactory year for polo, because of the increasingly good play of the second class, yet this season has emphasized, among some of the first class, that migratory spirit which, during recent years, has filled with alarm those whose interest in the game is moved by no selfish motives. And the championship tournament, with its only four entries, sounded a warning which the Association cannot afford to disregard.

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The playing of the champion four—Messrs. C. Randolph Snowden, J. M. Waterbury, Jun., Foxhall Keene and Lawrence Waterbury, who wore the Lakewood colors—was of a very high standard, and undoubtedly no club, with its present members, can compete with them; nor does it seem likely that more than one or possibly two, of the legitimate club teams can afford the time and expense necessary to play for the championship in years to follow, with so great odds against them at the outset. If the Association is to permit the gathering of star players for the purpose of seeking national honors under the name of a club with whom none of the men has even residential affiliation, then the Governors would better cease pretense of legislating for the good of the game and of the clubs. Messrs. Keene, Snowden and the Waterburys could have represented St. Louis with as equal propriety as Lakewood.

It is deplorable that the present season should have marked an increase in this disregard for club development just as the second and novice classes are beginning to provide the needed substitute material. The action of Lakewood and Myopia in recruiting their teams at the expense of other clubs, reduced the number of bona fide club entries in the 1901 championship. Last year six teams played, five of which were strictly club teams, this year four teams played, only one of which was a strictly club team. If the present desire for forming winning combinations continues, certainly the future of polo championship and even of polo itself looks dubious.

The sad truth appears to be that there is a dearth of sportsmanship among a large class of men who play polo; too many have no club loyalty, care nothing for the welfare of the game and seek only to be on winning teams.

Juvenile Polo Progressing. It is gratifying to turn from this subject to the more pleasing one of the game's development among the season's new clubs and players; Great Neck, Rumson, Squadron A and Westchester clubs have put forth some brand new and promising material which has shown up commendably. Rockaway continues its good work among the juveniles, to whom Mr. W. A. Hazard has rendered inestimable service in the last couple of years.

Mr. Whitney's Withdrawal From English Racing. It is good to hear that Mr. William C. Whitney is to withdraw from racing abroad and to confine his turf activity to America. At no time since the old days of Jerome Park, and of that coterie of sportsmen who made it what it was—Messrs. Travers, Withers, the senior August Belmont, and the Lorillards—has the sport in this country been so clean and the outlook so pleasing. Nor is it overstating facts to say that credit for this gratifying condition of turf affairs is due the present August Belmont and the Messrs. Whitney, Keene, Hitchcock, Wilson and Mackay.

As Mr. Whitney's reasons for retiring from English racing have been somewhat perverted and thus widely circulated, I quote *verbatim* some pertinent paragraphs from his sportsmanly letter on the subject.

"The dominating reason for withdrawing my stable from England is the success of the efforts of late years to raise the standard of racing in this country. Certain gentlemen have devoted most of their time to this work, and I considered it my duty, as one who derives great satisfaction from horses, to second their efforts in every way. It was for this reason that I co-operated with them to revive the Saratoga Association and abandoned a contemplated trip abroad this summer.

"The sending of our best horses abroad depreciates the quality of the sport at home and diverts needed revenues, which should be contributed to enrich our own stakes and encourage breeding here. I make an exception in my own mind of the case in which one has an eligible horse likely to win one of the classic races like the Derby, the Oaks, or the Leger. Winning one of these races reflects credit on our breeding, and is properly a matter of pride to Americans. It is not at all unlikely that I may be found trying for one of these again.

"The intimation has been made that my reason for withdrawing from racing abroad was dissatisfaction with the treatment my horses received. My main purpose in making this statement is to give an unqualified denial to that intimation. Nothing could be further from the truth. I have received nothing but courtesy and fair treatment abroad.

"We Americans have invaded England with new methods of training and riding, and with American-bred horses have won a fair share of stakes. It would have been perfectly natural if these successes had given rise to some jealousy in sporting circles, but I have never had evidence of the existence of such a feeling. Under these circumstances I can think of nothing more unsportsmanlike than the criticism these suggestions impute to me, of

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conditions and discretions to which all competitors are alike subject, be they native or foreign."

Out of some considerable experience on the other side, I unqualifiedly indorse what Mr. Whitney has to say on the spirit of fairness which obtains in English racing; and the same spirit rules in every game. There is no country on this earth where a man, native or foreigner, may be so sure of a "fair run for his money," as in England. In turf matters we would do well to sit at the feet of the English Jockey Club, and learn a few lessons.

Commendable Action by the English Jockey Club.

The ruling off the turf of jockey Lester Reiff by the English Jockey Club, is a very severe penalty, the severest indeed within its power, yet I have no doubt whatever of it being thoroughly deserved. Effort has been made to excite sympathy at the expense of the English racing stewards, but I have full confidence in the justice of their sentence. Indeed there is abundant evidence to show that the temper of the stewards has been sorely tried by the American jockeys, and I have no doubt that had Reiff and some of the others been English, they would have been set down long ago. But because of the very considerable success of American horses and trainers and jockeys, the stewards have exercised unusual patience less they be accused of bias by a sensational and partisan press.

American sportsmen who have attended English race-tracks this season declare the in and out riding of Reiff and some of the other American jockeys to have been frequent and scandalous. Then, too, the notable and unusual American successes have attracted in great numbers from this country those parasites of the race-track which constitute about the most demoralized and demoralizing element on earth; corruption was making its way on the English tracks, and the stewards realized that they must, in order to preserve intact the unsullied traditions of their turf, act quickly, vigorously and justly. There is no doubt that the English Jockey Club's trial has been a distressing one from which it has emerged with great credit. We may be sure that Lester Reiff richly merited the sentence, which has brought to an abrupt and thoroughly discreditable professional end, a life in the saddle which included the distinction of being the only American jockey to have ridden a Derby winner carrying American colors.

American Jockey Club Placidity.

The American turf very much needs just such a clear-headed and fearless body as the English Jockey Club has proved itself. Our Jockey Club and the stewards whom they appoint to supervise the racing are altogether too weakly good. Though their sympathy is enlisted for clean sport and their intentions of the best, yet they really very much hamper the best influences working upon turf matters, through the frequency with which they are bamboozled and the faltering manner of their address to offenders.

There has been some queer riding on several of our tracks this season, some that seemingly merited heavy punishment—yet the Jockey Club stewards viewed the performances with obvious and exasperating placidity; and when they have moved, behold with what gentleness! There was the case of jockey Shaw's riding of Mr. Whitney's Blue Girl in the Filly Stakes at Sheepshead, the exhibit of either a knave or an incompetent, for which the tender-hearted officials set him down three days! which was almost worse than letting him go scot free, for then, at least, he would not have had the measure of the stewards' judgment. Then there was the somewhat weird handling of Nasturtium by Turner at the start of the Futurity, which has yet to be satisfactorily explained. Both of these on the track of the Coney Island Jockey Club, which therefore seems to owe something to the public, if indeed not to doubly afflicted Mr. Whitney.

'Twould be an excellent idea for the American Jockey Club to take pattern of its transatlantic prototype the English Jockey Club; the native turf would be much benefited and native sportsmen much comforted thereby.

The Best Two-year-old of 1901.

The defeat in the rich Matron Stakes at Morris Park of William C. Whitney's Futurity-winning Hanover colt Yankee, by Clarence Mackay's Heno, does not conclusively prove the latter to be the best of this season's two-year-old colts, but it is convincing evidence that Heno is among the very best and that his poor show-

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ing in the Futurity was because he was green and fretted by the delay at the start and not because he lacked speed. This, added to the Dash Stakes, makes Heno's second notable victory and it is a pleasure to record such early successes by a sportsman of Mr. Mackay's stamp. The more converts to the turf of this kind of owner the better for the turf.

The question of the speediest two-year-old of the year, is a nice and an interesting one. Among Yankee, Nasturtium and Heno there is little choice; Nasturtium did not do himself justice in the Futurity, and Yankee was conceding seven pounds to Heno in the race of his first defeat this year at Morris Park. All three are great colts, and a race at even weights would be sport for kings indeed.

Of the season's two-year-old fillies, Endurance-by-Right, by Inspector B. out of Early Morn, appears to have a pretty clear title to the championship, even though Blue Girl be taken into consideration. She was bred by Colonel Young and, as a yearling, sold to Colonel Wm. Barnes for $250. Last year Mr. Schorr bought her for $5,200, and recently Mr. Whitney purchased her for a sum said to be $35,000. She has raced steadily this season, and though losing to Nasturtium and Goldsmith, has beaten Heno in very fast time; she is a filly of great speed and stamina, as has more than once been shown in 1901. Mr. Whitney now has an incomparably strong stable of two-year-olds—with Yankee, Nasturtium, Endurance-by-Right, Blue Girl, Goldsmith, King Hanover, Gunfire. There is assurance of the strongest three-year-old division next season we have had in years, including Heno and Lenora Loring.

Automobile Endurance Test. Nothing half so significant has transpired in the American development of the automobile, as the long-distance run which began at New York and ended at Rochester, instead of at Buffalo as originally intended—halted by the dire calamity which cost America one of its best Presidents.

Out of seventy-seven machines which started from New York, forty arrived at Rochester within the official reckoning hour, and seven came later during the night. A number had withdrawn during the run out of sheer disgust with the weather, which was abominable from start to finish. The scheme of the run was a test of automobiles under ordinary conditions, but the conditions turned out to be abnormally bad—the continuous rain making the already poor roads always exceedingly heavy, and at times and in places so deep in mud as to be almost impassable. To endure such conditions and yet show half the starters at the finish is no small credit to the machines, and the men who drove them.

There were about half as many steam as gasoline machines in the run, and of the forty which reached Rochester, fourteen were driven by steam. Indeed, for the kind of going encountered, the steam vehicle, with its higher body above the roadway and slush, appeared the most practical.

There were all kinds of surprises on the trip, but perhaps none greater than provided by the durability of the light-weight class (less than 1,000 pounds), eight of which completed the run. The lightest machine to finish weighed 600 pounds, and was propelled by a gasoline motor of two and three-quarters horse power; the heaviest was a 3,000 pound gasoline machine of nine horse power; but only twelve of the finishers weighed less than thirteen hundred and fifty pounds fully equipped, and twelve weighed over two thousand.

Perhaps the most significant facts brought out by the four hundred miles of going were (1) the low-horse power of the American machines which withstood the test, and (2) the strength of the tires. Weak tires have proved one of the greatest obstacles in the way of successful distance runs in Europe.

The run certainly brought great credit to the American-made machine, though it, of course, disclosed weaknesses which require strengthening and parts needing protection. In as much, however, as last year on a shorter run, only twenty per cent. finished, while about fifty per cent. finished this year—we may confidently count on the native manufacturer remedying, before another year, the existing deficiencies of the present machine.

Remarkable Automobile Speeding. In the automobile racing world no performances have attained to the distinction of those recently made by Mr. Albert C. Bostwick, and by the French professional chauffeur, Fournier, on the Empire oval one-mile trotting horse track.
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twenty-five miles in 32 min. 20 4-5 sec., and, although his best times for the one mile (1 min. 15 1-5 sec.) and for the full distance, were not equal to Fournier's records of 1 min. 13¼ sec., and 31 min. 44 1-5 sec., yet he succeeded in making new figures for fourteen of the miles. A week later, Mr. Bostwick, on the same track, covered one mile in 1 min. 13 2-5 sec., two miles in 2 min. 28 3-5 sec., three miles in 3 min. 43 4-5 sec., and four miles in 5 min. 4-5 sec., beating his own previous time. On the same day at Detroit, Mr. Winton, in his own American-built racer, did a mile in 1 min. 12 2-5 sec., and three miles in 3 min. 42 2-5 sec.

But in actual speed making, the performances of Fournier on the Empire track, the second week in October, stand unparalleled by anything on wheels, save the swiftest locomotives. He drove his racer around the oval course, for six miles, at the average speed of a mile in 1 min. 7 5-6 sec., or at the rate of 53.09 miles an hour; at his fastest he went at the rate of 53.83 miles the hour, and at no period was his speed less than 53 miles. As the Empire State Express, one of the fastest trains in the world, travels at the average rate of a mile in 1 min. and 15 sec. —the pace of Fournier may be appreciated. He made the six miles in 7 min. 39 4-5 sec., and his fastest mile in 1 min. 6 4-5 sec.

Regarded purely as a sporting event, Mr. Bostwick's seems to me to have been the more notable achievement, for several good reasons; his machine was an American-made gasoline road vehicle of forty horse power, which he uses daily and frequently carries as many as ten passengers. Fournier's automobile is a sixty horse power machine, built especially for racing. It is the one which carried him a winner last summer over the nine hundred miles from Paris to Berlin, at an average speed of forty-seven miles the hour. To manipulate Mr. Bostwick's lighter road vehicle around the curves of that oval track required a steady hand and a courageous heart. In the eyes of the on-looking layman, the impressive feature of Mr. Bostwick's performance was the way he hugged the pole on the corners; at no time was the inner forward wheel over two feet from the track's innermost edge; nor were the turns banked as on the bicycle tracks. It was daring and thrilling work. Here is sport royal indeed. The exhilaration of tobogganing, or surf coasting, coupled with the unwavering, delicate skill of the fencer.

Hope of Native-born Golf Champion.

It was not to be expected that eighteen-year-old Mr. Walter E. Egan would defeat the veteran Mr. W. J. Travis in the postponed finals for the golf championship over the Northfield (Atlantic City, N. J.) course; yet there was great promise in the younger man's play, such promise, in fact, that national honors seem to be surely within his reach if he holds in form and adds to his experience. As it was he played good enough golf to finish twenty-four of the thirty-six holes, all square, but then his less steady nerves began to show the strain of the competition—and Travis beat him out five up and four to play.

Mr. Travis defeated Mr. Egan as, in the semi-finals, he had Mr. Douglas, by the machine-like regularity of his work. It is the certainty of always doing hole after hole in very low, if not par figures, rather than brilliant play, which gives the title holder his repeated successes. Several men, Mr. Douglas notably, play in more attractive, not to say better form, and score as low in medal play or against an obviously weaker opponent, but none who is a match player has also disclosed sufficient skill to overcome the stoical countenance of Mr. Travis and the unchanging accuracy of his stroke.

Mr. Holabird is another western young man into whose golfing future we are looking with much interest. He did not do so well at Northfield as he had on his home course, but he did well enough to suggest that the rising young talent of the West is likely to outstrip that of the East.

Women Golf Champions.

Miss Genevieve Hecker has amply justified the confidence some of us had in her ability to win the golf championship. She can defeat any woman who has shown in tournament play this year, and proved it over the Baltusrol course. It was a memorable tournament, quite the best the women have held, and with an average of match play much closer, and therefore more interesting, than had ruled in the men's championship a few weeks earlier. The best match among several exciting ones in the second was that between Mrs. Manice and Miss Adams, who each made a 94—the lowest figures of the tournament, and played three holes a stroke under the men's bogey and nine in bogey figures. The next best was 96 by Miss Margaret Curtis. The play of

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SUMMARY OF THE SIXTH ANNUAL WOMEN'S GOLF CHAMPIONSHIP—U. S. GOLF ASSOCIATION.
Baltusrol, N. J., Oct 8-12, 1901.

Qualifying Score.					
97	Miss Margaret Curtis, Essex, Mass.	Curtis, 2 up	Curtis, 1 up, 19 holes.	Herron, 3 up to 2 2 to play	Hecker, Champion 5 up 3 to play
104	Miss Pauline Mackay, Oakley, Mass.				
103	Miss Bessie Anthony, Glenview, Ill.	Anthony, 5 up, 4 to play			
100	Miss Marion Oliver, Albany, N. Y.				
100	Mrs. N. Pendleton Rogers, Baltusrol, N. J.	Rogers, 1 up	Herron, 1 up		
104	Miss Harriot P. Curtis, Essex, Mass.				
97	Miss Lucy Herron, Cincinnati	Herron, 1 up in 20 holes			
103	Miss Emily Lockwood, Lexington, Mass				
97	Mrs. Edward Manice, Lenox, Mass*	Manice, 6 up, 5 to play	Manice, 2 up, 1 to play	Hecker, 2 up, 1 to play	
102	Miss Louisa A. Wells, Brookline, Mass.				
97	Miss Mollie Adams, Wollaston, Mass.	Adams, 3 up, 2 to play			
104	Miss F. K. McLane, Baltimore.				
102	Miss Georgiana Bishop, Brooklawn,	Bishop, 4 up, 3 to play	Hecker, 1 up 19 holes		
102	Miss Elizabeth Farrington, Lowell, Mass.,				
101	Miss Genevieve Hecker, Essex, N. J.	Hecker, 4 up, 2 to play			
104	Miss Grace Fargo, Seabright, N. J.				

* Won the play-off for medal score tie.

Mrs. Manice throughout was of a high quality. She is a very accurate driver, but particularly strong on the putting green. Miss Margaret Curtis, however, is the longest driver among the women and won the contest at 204 yards 7 inches; she and Miss Anthony, the western champion, whose game has much improved over last year, had a rare good match, one of the best of the week, and her final defeat by Miss Herron was one of the tournament's surprises. Miss Herron, who is strong on the putting green, is another one of the formidable golfers, who, of both sexes, the West is sending out to test eastern skill to its utmost.

Miss Hecker merited her victory, for though she is weaker in putting than Mrs. Manice (who really stands next to the champion in point of skill, despite her not being runner up), she has a good long game and among the women is incomparable in approaching. She is also Metropolitan champion.

The surprises of the tournament were the failure to qualify of Miss Griscom (107), the 1900 champion; Miss Ruth Underhill (116), champion 1899; Miss Eunice Terry (115), who qualified last year, and Miss J. Anna Carpenter (105), who is the third best player of the Middle West—Miss Anthony and Mrs. Hobart Chatfield-Taylor being first and second. It suggests the improving quality of the woman's game. Last year 111 was good enough to qualify, and there were sixty-three entries to eighty-two in 1901.

The disappointment of the tournament was the non-starting of Miss Beatrix Hoyt, who until this year has won every gold medal for low score the U. S. G. A. has offered for women; her figures were 95 in 1896; 108 in 1897; 92 in 1898, 97 in 1899 and 94 last year at Shinnecock. She was also champion in 1896, 1897 and 1898.

PREVIOUS CHAMPIONS.

Year and Course.	*Winner.*	*Runner Up.*
1896 Morristown, N. J.,	Miss Beatrix Hoyt,	Mrs. A. Turnure.
1897 Manchester, Mass.,	Miss Hoyt,	Miss Sargent.
1898 Ardsley, N. Y.,	Miss Hoyt,	Miss Wetmore.
1899 Bala, Phila.,	Miss Underhill,	Mrs. Caleb Fox.
1900 Southampton, L. I.,	Miss Griscom,	Miss M. Curtis.

Home Cricket Shows up Well.

That was an amusing state of mind into which some Philadelphians worked themselves early in the month. Are we to believe them so accustomed to defeat by visiting elevens that they view a victory of the home players as evidence of English mediocrity, rather than of American good play? That is about the only conclusion an unbiased man can draw from the little teapot tempest, which, in exceedingly reprehensible taste, was allowed to boil over into the local press, while yet the English cricketers were in America. A more violent breach of sporting etiquette has not been made in my remembrance; speedy apology is the least reparation that should be made.

Now, as a matter of fact, although Mr. B. J. T. Bosanquet's eleven was not a particularly strong one, yet it was stronger than either last year's Oxford or Cambridge, and probably about as good as Leicestershire, Derbyshire and Worcestershire, of the first-class English counties. It had five first-class bats—Mitchell, Bosanquet, Crawford, Wilson and Dowson—but was somewhat weak in the bowling department. Dowson, who had been a great success at home, did not come off at all, and Moore bowled a long way better than any one else on his side.

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They were really not so strong a team as the Philadelphians made, with their first-class bowling and fielding, though the local players were without the good services of their strongest all-round member, George S. Patterson, whose business prevented his playing. Jordan's wicket-keeping in the second match was brilliant. The American batting, however, was only fair. Lester played splendidly, and C. C. Morris very well, in both matches. Bohlen, Graves and Brown played well in one match, Brown, in particular, making two brilliant innings of 103 and 31.

The Colts won their matches easily, and of the two test matches, the Englishmen won one and the Philadelphians the other. On the whole the Americans played better cricket than in recent international matches. Perhaps the feature of native play was the showing of C. C. Morris, who, though it was his first international match, got 180 runs in the sixth innings he played. He is undoubtedly the most promising bat in this country.

Strong Football Teams Promised.

Football is just beginning as we go to press, and although the teams have scarcely formed, yet there is indication, even so early, that Yale's eleven will be little if any inferior to that of last year, and that Pennsylvania is sure to be stronger than it was in 1900. Princeton, too, appears to be in the way of having a better team than last year, although at this time of writing, there is no positive assurance of it; at least they have arranged a more sensible playing schedule than they had last year. So have others. Columbia must get a better quality of men if it is to do so well as in 1900; too many of the present lot appear unequal to playing ball and maintaining a class standing simultaneously.

Harvard, thus far at least, has not so strong a line as Yale, though its back-field is somewhat more mobile and swifter. Yale's rusher material, too, seems somewhat the better—but then it is really too early, as I write, to get more than a mere inkling. Certainly Harvard must develop a team which will prove strong when strength is needed, as the 1900 team did not (for no fault of the players, however, but of its training) if it is hoped to meet Yale on even terms, or to win from Pennsylvania. They should have learned some lessons by now at Cambridge.

West Point and Annapolis, and the leading middle western teams are showing encouragingly save Chicago, which seems weaker than usual.

SUMMARY LEADING FOOTBALL SCORES TO OCTOBER 12.

HARVARD.		YALE.	
16—Williams	0	23—Trinity	0
12—Bowdoin	0	5—Amherst	0
16—Bates	0	29—Tufts	5
11—Amherst	0	24—Wesleyan	0
18—Columbia	0	24—Annapolis	0
PENNSYLVANIA.		**CORNELL.**	
28—Lehigh	0	17—Colgate	0
6—Franklin & M	0	50—Rochester	0
23—Penn State	6	6—Bucknell	0
28—Swarthmore	0	39—Hamilton	0
26—Brown	0	24—Union	0
COLUMBIA.		**PRINCETON.**	
0—Buffalo	5	35—Villa Nova	0
27—Rutgers	0	47—Haverford	0
5—Williams	0	23—New York Univ	0
0—Harvard	18	35—Lehigh	0
WEST POINT.		**ANNAPOLIS.**	
20—Franklin & M	0	0—Georgetown	0
17—Trinity	0	28—St. John's	2
		0—Yale	24
BROWN.			
12—Boston	0	0—Syracuse	20
16—Colby	0	0—Pennsylvania	26

Chicago, 6; Knox, 0.	Illinois, 52; Sims Medical, 0.
Chicago, 5; Purdue, 5.	Illinois, 21; Washington, 0.
Purdue, 45; Wabash, 0.	Michigan, 57; Case, 0.
Minnesota, 19; Nebraska, 0.	Michigan, 33; Indiana, 0.
Wisconsin, 40; Beloit, 0.	Northw'n, 2; Notre Dame, 0.

Kentucky Futurity Youngsters.

Down at Lexington there has been one of the greatest meetings in the history of the Kentucky Trotting Horse Breeders' Association, whose annual events are so important in the eyes of those interested in the trotter. The memorable feature of this meeting was the hard-earned victory of Peter Stirling, in the $16,000 Kentucky Futurity, the most important of the trotting stakes for the three-year-olds, over Walnut Hall, the favorite, and a native colt of great beauty and strength. The filly, Mary P. Leyburn, which T. W. Lawson had bought especially to win this race (and paid $10,000 for her), was not in the running, although the time was not remarkable, being 2.13, 2.11½ and 2.14 in the three straight heats.

In simple justice I wish to record that in the race which, after so much dickering, finally resulted between The Abbot and Cresceus at Readville, Mr. Lawson gave the purse of $20,000 which he had withdrawn from the Cresceus-Charley Herr-Boralma stake. It was rather difficult to keep track of the shifts that occurred in the last matching of those horses, before a race eventuated. Although Cresceus has beaten The Abbot, there are some shrewd horsemen who believe the latter, at his best, can win. Neither of the great trotters has been successful in his race against time.

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AT the time of this writing abundant proof is at hand of the phenomenal "chicken crop" referred to in last issue. It is now quite certain that western grounds have furnished sport with grouse which has not been surpassed for many a year. From Illinois, Wisconsin, Minnesota, the Dakotas, and the Canadian Provinces, comes the same cheering news of plenty of birds, and sport of the highest order. Granted now a reasonable amount of care in enforcing the laws after the season has closed, a reasonable winter, followed by an average breeding season, and next season's crop should be something worth working for. The pot-shooting and the trapping after the close of the season, frequently play the deuce with what otherwise would have been a fine breeding stock, but it seems as though the trapper was now in for a hard time. Sportsmen of the west have at last asserted themselves, and the outlook for a continuance of sport as it should be is most encouraging.

THE State of Illinois has a new and very large game preserve which includes the well-known Thompson's Lake and several thousand acres of adjacent marsh lands. A sportsmen's club will have control, prominent members being Messrs. Hy. Bates, W. P. Ijams, Hon. H. S. New, Dr. T. Hill and others, all keen sportsmen.

A LAST word to intending campers, of whom there will be many this month in the deer country. Don't expect your guide to perform miracles—he is only mortal as you are, but he probably knows a heap more about the woods. Don't expect him to put you right on top of a deer every few hours; don't fail to follow his instructions, especially about quietly waiting at a selected spot; neglect of this may cost you the deer he has worked hard to secure. Don't fill him full of whiskey and then expect him to be active, keen and reliable. Don't stuff him full of yarns about what you can do, or have done. He is a practical man and can read a duffer easier than he can read a book. Don't make a fire except where you can instantly quench it if need be, and never leave a temporary camp before drowning out the last spark of fire. One live coal is one too many, for it may cause a conflagration, which in turn may work tremendous damage, and possibly destroy human life. Put out your fire—[illegible] water costs nothing beyond a little [illegible] fire may cost an hideous price.

ONE of the most persistent of pot-hunters and a difficult sinner to reform, is the prowling Italian. The swart son of the sunny land seems to think that as this is a free country, he is free to act in a do-as-you-damn-please sort of a way. When he gets hold of a gun he is apt to shoot anything with feathers and several things without. To him song birds, all birds, are desirable quarry; he can either eat them himself, or sell them to some countryman who runs a cheap restaurant, so he hunts persistently. The season for his woodland gleaning is now well advanced, and the papers have reported the usual crop of mysterious shot wounds. He is a menace to all who drive, ride, wheel, or walk along lonely road or woodland path, and he should be suppressed.

FEW of the foes of upland game are more persistent destroyers than that rascal in feathers, Cooper's hawk (*Accipiter cooperi*), or his fellow rascal the sharp-shinned hawk (*A. velox.*). Nor are their depredations confined to the game covers, as many a breeder of fancy poultry and pigeons knows to his sorrow. These hawks are crafty and practically fearless in attack, neither hesitating to attack a grouse or a pullet. It is their habit to conceal themselves amid dense foliage, from which they can bounce upon grouse, quail, pigeons and young poultry. In color and markings, in everything except size, they closely resemble each other. Cooper's hawk is the larger, but the most notable difference is in the tail, that of *Cooperi* being rounded, while the other is square at the end. Both have comparatively short wings, yet both are swift—indeed, *A. velox.*, as his name indicates, can go at an amazing pace. When a hawk is seen pursuing quail, the chances are it is one of these. Upon the wing both present a slim-bodied long-tailed effect. The best remedy for them is about an ounce of chilled shot, delivered well ahead if the hawk be crossing you.

IN reply to several young correspondents who have asked about how to purchase a gun—as Hamlet didn't say—"Get thee to a gunnery"—or rather go to a dealer of good standing. For the average young fellow, the best gun is a twelve-gauge of from seven and one-quarter to eight and one-half pounds weight. The question of price will be governed by the size of the pocket. I should advise a first-class, hence an expensive arm. If you can afford it, buy as though you contemplated buying but

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once in your life. The best and most expensive is none too good, for with proper care it should last a lifetime. Buying a gun is like buying a watch—a strictly high-grade article costs money, but when once bought, it is a possession of which one may feel proud for many years, and maybe bequeath to a deserving heir. A useful and reliable double gun can be bought for from $40 to $85; a fine gun may cost five or six times the latter price. For the extreme figure one gets an arm of the very finest materials, fashioned by the most skilled hands in the business, and the possession of it should prove most satisfying. However, lots of cheap guns will kill game, if that is all that is desired, and a cheap arm by any one of the firms advertised in this magazine will be found exactly as represented. As to how to use the gun—well, that is another story. Granted that the arm has made a satisfactory pattern by test at a 30-inch circle at forty yards, the rest of the business mainly depends upon the young shooter himself. First let him practise bringing the empty gun to the firing position and covering some chosen mark until he can do it smoothly and rapidly, then let him attempt easy marks—say four-inch square blocks of wood tossed up by a friend. Light loads will suffice for these, as the range should be short. When the novice can hit half of these the distance should be increased until he performs fairly well at about thirty-five yards. Then, and not till then, he may go afield with a reasonable chance of stopping a bird or so in half a dozen attempts.

Quail are good birds for a beginner, especially early in the season, because they lie close, fly only moderately fast and usually in a straight line. In a prairie country, young grouse afford excellent marks, they being large and comparatively slow. Where waterfowl have regular fly-ways, the novice can also get much useful practice, as this sort of shooting gives him more time to calculate how much to lead and how to keep the necessary even swing of the gun. While it is difficult to lay down hard and fast rules, I should say, hold high on flushed birds going away; low, just under low incomers; ahead, according to distance, of high incomers; ahead of all crossing shots, and dead on a bird going or coming face high.

HOLD ahead of everything that you can see ahead of, would be no bad rule, for seldom indeed is a bird lost through leading it too much. A very common fault is the stopping of the swing of the gun as the trigger is pulled. Nine out of ten beginners do this even after they have learned to hold ahead. Then they wonder why they miss fair crossing shots. The only way to correct the fault is to master the smooth continued swing beyond the point of discharge. Many lead their birds too much, stop the swing and kill, and they do this without knowing it. This fault, after it becomes fixed, renders a man a most uncertain performer, for he is at the mercy of the bird, which by a sudden twist may instantly be out of the line of fire. Yet the man with a tendency to lead too far will kill more than the man who does not lead enough, for the former, when he hits a bird, touches a vital spot, while the other may dust bird after bird too far back, without securing one. Persistent hitting of birds too far back is an abomination, for it means broken legs, injured intestines and a lingering death for the wretched victims. A judicious lead and an even uninterrupted swing mean not only swift and painless death to the bird, but also that very valuable accomplishment, control of the second barrel. My young readers should remember this and practise accordingly.

THE beginner also will do well if he learns to shoot with both eyes wide open. There is no sense in a chap squinting with one eye along the rib of a gun, when he can see much better with two. He doesn't depend upon one eye when playing billiards, fencing, sparring, catching a ball, or in any game where quick, true eyes are an advantage. Because some old Leatherstocking used one eye for the fine sights of his rifle, is no reason why a modern sportsman should shut one eye while using a shotgun. I am aware that many good shots close one eye, they have formed the habit and can shoot best so. But that does not prove that they wouldn't be better shots had they always kept both eyes open. There are many mighty poor shots who close one eye, and all unknown to them, the cause of their poor performances may be some defect of the eye they depend upon. An old-timer once said of me, "That big-eyed brute shoots with both eyes open—one eye on his bird and the other eye on the next bird—gol durn him ennyhow!" There was a grain of truth in what he said, too, for the man who shoots with both eyes open gradually acquires a knack of keeping track of two birds at once.

Another important point for the beginner is to learn to pick his bird out of a rising bevy or covey, or whatever it may happen to be. Fix your eyes on your bird and keep them on

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him. Bring the gun to the eyes instead of shifting the eyes to the gun. Trust to the hands to bring the gun to the proper place. If given free play they will act in strict accordance with the eyes. Let the right hand know what the left hand is doing and give it a chance to help. If you suddenly point your finger at an object, no matter how small, the finger points truly at it, providing your eyes are normal. When you run to catch a high fly you don't try to watch the ball into your hands—you keep your eyes on the ball and hold your hands where the eyes tell you the ball will drop. In billiards, archery, pitching, and so on, you don't try to draw a fine sight; your eyes tell you the ball, or arrow, must go to a certain point and the hands do the rest. And this holds true of shooting and the beginner who understands this and who trusts to the unity of action between eyes and hands should develop, after a reasonable amount of practise, into a clinking good shot.

EDWYN SANDYS.

GUNNERY

THE A B C OF MARKSMANSHIP—III. (CONCLUSION)

MOST field shooting must be done offhand. Consequently offhand practise (after the preliminary rest shooting described in my previous paper) is more important to the hunter and the soldier than any other style. It is also the most difficult class of rifle practise. One may be successful as a wing-shot with the scatter gun, and yet be a sad bungler with the rifle. If a good shotgun be aimed anywhere within fifteen inches of a bird forty yards distant, it will hit. Now, if the distance from the gunner's eye to the muzzle of his gun be thirty-six inches, then a variation of fifteen inches from dead center at forty yards means a muzzle error of 3-8 inch. So the muzzle of your shotgun may wabble 3-8 inch in any direction from true line of aim, and you will still get your bird at forty yards. Now what would such an error mean if you were shooting a rifle? It would miss a thirty-inch mark at forty yards, or a twelve-foot circle at two hundred yards. Yet the bullseyes used in offhand rifle shooting at two hundred yards are not over twelve inches in diameter. To hit that twelve-inch mark, the muzzle of your rifle must not swerve more than 1-25 inch from dead center at the instant of explosion.

FIRST STEPS IN OFFHAND SHOOTING.

You should first learn to hit a small stationary object at known distance. Begin at fifty feet; because at that range you can see all shot holes that miss the black, and you can dispense with a telescope, or an assistant at the target. Use a one-inch bullseye. Stand quartering towards the target, left foot advanced, right foot almost at right angles to it, weight of body evenly distributed on both feet. Grasp the forearm of the rifle firmly two or three inches in front of the trigger-guard, and small of stock with the right. Raise the rifle in such a position that your left arm will be bent under it almost at a right angle, and your right arm will be thrown out almost on a level with the top of your shoulder (or you may extend the left hand farther forward, if more comfortable). Do not crane your neck forward, but stand erect, in an easy and comfortable position. Bring the tang sight within an inch of your eye, or even less. With the left hand press your rifle firmly against the hollow between the biceps and shoulder; but do not grip tightly with the right hand, for that would cause tremor. Aim, as you did in rest shooting, with bead just touching the black at 6 o'clock—or try to do so.

Now the sight will bob about in the most confusing manner. You cannot hold it on the black for half a second; and the longer you aim, the more you shake. Discouraging—isn't it?

Well, don't fire just yet. Practise aiming with unloaded gun, noting, each time that your bead touches the black, at what speed the sight bobs away from it. Try to get a regular swing, so that you may know in which direction the sight will go after touching the bullseye. Try to settle down, so that the swing becomes shorter and shorter. (Experts, when training for important matches, often practise at night in their rooms, by aiming the empty gun at a very small spot on the wall or window, and snapping an empty shell at it. This does them almost as much good as actual firing on the range.)

Feel pretty confident, now? Very well; open the breech and insert a cartridge. Stop! Do you notice where the muzzle of that gun is pointing? You don't want to kill somebody

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in the next field. Lower the muzzle until it points to the ground a few feet ahead of your toes. And remember this; a genuine marksman is known by the way he handles a gun. Loaded or unloaded, he treats it the same.

The muzzle of his gun invariably points towards the ground or sky, or towards some impenetrable backstop. When handling a gun he does not think about this, because it is second nature to him; but it is second nature simply because long ago he trained himself always to handle an empty gun as though it were loaded. You will be bad company until you acquire that same habit.

Now go ahead. Are you ready? Fire!

There is the shothole. Ten o'clock; six inches from the black. In other words; high, left, and a wild miss.

Blushing furiously; aren't you? Well, *why* did you miss?

Don't know? Then I'll tell you why. You flinched.

Didn't? Cock-sure of that? Very well; try again. Let me load the gun. There: crack away.

No report. A missfire, perhaps. But you jumped half out of your boots. You confess it, this time. Well, that is why I loaded the gun with an empty shell; so you might see yourself flinch. As soon as you know the cause of your error, the battle is half won. Now load the gun yourself, and try again.

Hello! Where did that shot go? You don't know? Neither do I. Let me examine the target. Deep in the black at two o'clock; almost a dead center. That is a bad shot.

"Bad!" you exclaim.

Yes; very bad; because you did not know where the bullet went, and hence do not deserve a bullseye. But you didn't flinch that time. You have learned an important lesson.

Now remember what I told you about rest shooting. Keep on aiming for a second after firing, and try to call your shot. When you know to a moral certainty where the bullet went, you are becoming a marksman, even though some of the shots fly wild. All else now depends upon practise. It is like learning to play the piano.

FIELD SHOOTING.

After you can shoot fairly well with deliberate aim, cultivate quick shooting. Get a friend to call for you. Get into position, with gun loaded, but not with butt to shoulder. Then let your assistant call: "Are you ready?"

You answer: "Ready."

He commands: "Fire! one—two—three."

The words are given at intervals of two seconds. You must fire before "three" is called, or your shot goes for nothing.

Now go to the woods. The best field practise for a beginner, with the rifle, is at squirrels. They afford a standing shot at from twenty-five to thirty-five yards. Sight your rifle for twenty-five or thirty yards; the latter is better if the trees in your hunting ground are tall. Go alone. Take no dog. You should learn still hunting; and should learn it by yourself; for knowledge sticks thus acquired.

Walk very slowly through the woods, and quietly; but do not sneak. A squirrel seldom runs far from a hunter. His curiosity gets the better of him, and he must soon run up a tree and see what that two-legged thing is after. Sit down on a log for a few minutes, now and then; keep still and watch.

Ah, there he is! Don't follow him; but watch where he goes. There he is shooting up yonder hickory. But he has disappeared. Look sharply, now, at every fork of a limb. Don't look for the whole squirrel; but only for the tip of his head, and the two bright eyes. He is nowhere to be seen. Now scan closely the upper edge of every limb. You can move slowly towards the tree while doing so. There he is, flattened on a big limb forty feet from the ground—an easy shot. You can't see his body; but the head, shoulders, and bushy tail are distinct. Aim for his shoulder, low, where the foreleg joins it. Then, if you should swing a trifle, you may still get him through either head or body. When you gain confidence, you should make it a point of honor to aim only at the head. Squirrel shooting with a small-bore rifle is the manual training-school of nail-driving marksmanship. By-and-by, with a rifle of larger bore, you may learn to "bark" your squirrels, as Boone and the other old backwoodsmen did, by shooting into the limb just under, and within a half-inch of, the squirrel's heart. Such a shot knocks the animal high in the air, by the mere concussion, and drops him, stunned, without drawing blood. But a .22 is too small for such work.

MOVING TARGETS.

When you are a good offhand shot at stationary marks, begin practise at moving objects. Don't shoot at tomato cans, etc., thrown into the air; for such shooting, with a rifle, is a fake. The trick is easy, if you shoot as the target turns to descend: and no game nor enemy will ever behave in that way. Have a friend roll objects along the ground, while you shoot at them. Then let him toss them

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from him at varying angles. Go to the river and shoot at driftwood, waterfowl, etc. Here you will learn to judge distance.

In shooting at unknown distances, you should generally make allowance by holding the front sight above or below the mark, according as it is far or near. But if the range is considerable, and your mark tarries long enough you may adjust the rear sight to the estimated distance, and then be more sure of the result.

Shooting over the water has the advantage that you see where the bullet struck, and so can learn more quickly not only the trajectory of your rifle, but also the effect of wind upon the bullet.

HORACE KEPHART.

NOTABLE PERFORMANCES AND RECORDS

THE INTERNATIONAL TRACK GAMES.

THE fourth series of the Oxford-Cambridge Harvard-Yale games were held on Berkeley Oval, New York City, Wednesday, September 25, 1901, America proving victorious over England in six of the nine events.

Preceding contests have resulted:

1894 Oxford, 5 1-2; Yale, 3 1-2 in London.
1895 Yale, 8; Cambridge, 3, in New York.
1899 Oxford-Cam. 5; Harvard-Yale, 4, in London.

It will be observed that in each instance the home team has won; a result usually traceable to climatic handicaps against the visitors; but the 1899 American team might have won in London had it not been for the severe illness of Burke, the Harvard half-miler.

In no previous instance has the American team been representative of the best university strength, few men of championship caliber being included; but the 1901 team contained the best material which current American university athletics could produce, save three or four. Duffy, of Georgetown, in the 100; Perry, of Princeton, in the half mile; DeWitt, of Princeton in the hammer, and Gallagher, of Cornell, in the two miles, would have strengthened the team, but Duffy's and De Witt's events were won anyway, and Perry and Gallagher could not have done more than reduce Workman's margins of victory.

The day was cool and beautifully clear, with what breeze there was blowing down the homestretch. The attendance was the largest recorded at any track and field contests in New York since the series of 1895.

A SUMMARY of the games, with certain pertinent comment, follows:

105 yards dash—1, N. H. Hargrave (Yale) by 2 feet; 2, A. E. Hind (Cambridge) by 1 foot; 3, J. E. Haigh (Harvard) by 2 feet; 4, J. Churchill (Cambridge). Time, 10 2-5 sec.

The odd distance was due to an error of the starter, who sent the men away from the mark intended for the hurdle race. The time is therefore a shade better than ten seconds for an even hundred, but the margin would be rather too small for a timer to record. Hind proved as clever a sprinter as England has sent over here, his work quite equalling that of Bradley or Downer. The four men left the mark together, Hind, however, leading for seventy-five yards, when Hargrave drew level, winning by an extra burst in the last fifteen yards.

One-half mile run—1, H. W. Workman (Cambridge) by 10 yards; 2, J. R. Cleave (Oxford) by 15 yards; 3, E. B. Boynton (Harvard) by 1 foot; 4, D. W. Franchot (Yale). Time, first quarter, 55 3-5 sec.; half, 1 min. 55 3-5 sec.

The Americans drew the pole, but conceded it to the Rev. Mr. Workman, the best middle-distance runner in England, who had been prevailed upon to try for the world's record, viz., 1.53 3-5, held by C. H. Kilpatrick. Mr. Workman made a runaway race of it, but both quarters were slower than Kilpatrick's, and he fell short. Barring his two previous performances on this side of the Atlantic, it was the fastest half-mile run in this country since Evan Hollister's performance in 1897. Workman's form is surprisingly poor, particularly his upper-body work, but despite his disadvantageous form, he "gets there" amazingly.

Throwing the Hammer—1, W. A. Boal (Harvard), 136 ft. 8 in.; 2, E. E. B. May (Oxford), 128 ft. 3 in.; 3, W. E. B. Henderson (Oxford), 111 ft. 4 1-2 in.; R. Sheldon (Yale), who had recently been ill, made one attempt to throw and withdrew.

Boal did not equal his average performance in competition, but was good enough to win, although May is by far the best university hammer thrower England has sent over. He used the modern American handle and employed the double turn.

One-quarter mile run—1, E. C. Rust (Harvard) by 2 yds.; 2, D. Boardman (Yale) by 2 yds.; 3, R. W. Barclay (Cam.), 4, S. A. Neave (Oxford). Time, 50 sec.

Boardman, who was picked to win, drew the outside place, made a poor start, and wa

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compelled to run about eight feet wide of the pole all around the first curve. On the backstretch he allowed the leaders to get too far away, probably through over-confidence, and when he made his final spurt—ordinarily fast enough to win—he could not reach the flying Rust, whose excellent judgment supplemented his fine speed and landed him a merited victory. Neave, on whom England's hopes were laid, hit his ankle severely by running too close to the pole, and was thrown out of the race.

Running high jump—1, J. S. Spraker (Yale), 6 ft. 1 1-2 in.; 2, R. Kernan (Harvard), 6 ft. 1-2 in.; 3, G. H. Smith (Cambridge), 5 ft 10 1-2 in.; 4, W. E. B. Henderson (Oxford), 5 ft. 9 1-2 in.

This is Spraker's best jump in outside competition for Yale, but he is not the consistent performer he was at school. Kernan surpassed his best previous record.

The English jumper, Smith, used to his great advantage, the American style instead of the old side-wise scissors motion.

One mile run—1, F. G. Cockshott (Cambridge) by 25 yards; 2, H. W. Gregson (Cambridge) by 6 yds.; 3, H. S. Knowles (Harvard) by 4 yds.; 4, H. B. Clark (Harvard); 5, W. D. Waldron (Yale) 6, J. J. Cawthra (Cambridge). Time, by cumulative quarter miles, 1 min. 4 sec.; 2 min. and 14 3-5 sec.; 3 min. 26 2-5 sec.; 4 min. 26 1-5 sec.

Clark is the best of the present American college milers, and his performance on a submerged track at the Intercollegiate championships last May was estimated equal to about 4.20 under normal conditions; but he was palpably below form against the Englishmen, for he ran about forty yards slower than 4.26 1-5, was painfully spent, and, moreover, was beaten by his college mate, clearly his inferior last season.

Cockshott ran a finely judged race, and his last sprint of 150 yards was very fast indeed. He could evidently have done better, had a faster pace been set him for the three-quarters. Gregson is also an excellent finisher. Cawthra did not finish at all and Waldron was just making the upper turn when the winner crossed the line.

120 *yards hurdle race*—1, J. H. Converse (Harvard) by 3 in.; 2, G. R. Garnier (Oxford) by 1 yd.; 3, E. Allcock (Cam.) by 2 ft.; 4, E. J. Clapp (Yale) Time, 15 3-5 sec.

THIS was the most exciting race of the day. Garnier is the best English hurdler ever seen here, and had he known how to sprint as well as he topped the timbers, might have won. As it was, after clearing the last hurdle, he reached the ground just a breath ahead of Converse, who beat him in the last stride for the tape. Clapp displaced five hurdles.

Running broad jump—1, J. S. Spraker (Yale) 22 ft. 4 in.; 2, A. W. Ristine (Harvard) 21 ft. 4 1-2 in.; 3, W. E. B. Henderson (Oxford) 19 ft. 9 in. L. J. Cornish (Oxford) who was lamed through a fall in practice, made one unsuccessful attempt to jump.

Two mile run—1, H. W. Workman (Cambridge) by 35 yds.; 2, E. W. Mills (Harvard) by 6 yds.; 3, C. J. Swan (Harvard) by 4 yds.; 4, E. A. Dawson (Oxford) by 15 yds.; 5, H. P. McNaughton (Cambridge) by 5 yds.; 6, B. G. Teel (Yale) Time, by cumulative halves, 2 min. 24 sec.; 4.59 3-5, 7.35 4-5, 9.50.

Workman and his mates made the pace all the way, the first-named sprinting the last quarter vigorously. His final half mile was much his fastest and his time was better than Alex. Grant's Intercollegiate record of 9.51 3-5. It did not, however, equal G. W. Orton's 9.41, made at the Pennsylvania games in 1895.

The summary on the Intercollegiate basis:

	1sts.	2ds.	3ds.	4ths.	Points
Harvard	3	3	3	1	33
Cambridge	3	2	3	1	28
Yale	3	1	0	3	21
Oxford	0	3	2	4	17

ACTIVITY IN CANADIAN ATHLETICS.

THE visit of the British team, the accessibility of the Pan-American games and the comparatively small team sent to the Canadian amateur championships from New York, have combined to bring out renewed interest in track and field sports in the Dominion.

CANADIAN CHAMPIONSHIPS, TORONTO, SEPT. 21.

100 *yards dash*—1, J. D. Morrow (McGill University); 2, W. C Covernton (Montreal A. A.); 3, J. P. Craig, (Montreal A. A.). Time, 10 2-5 sec.

220 *yards dash*—1, J. P. Craig; 2, J. D. Morrow. Time, 23 1-5 sec.

One-quarter mile run—1, J. D. Morrow; 2, George Stephen (Montreal A. A.). Time, 51 1-5 sec.

One-half mile run—1, Alex Grant (New York A. C.); 2, P. Molson (McGill Univ.); 3, D. Grant, Boston. Time—2 min. 1 1-8 sec.

One mile run—1, Alex. Grant; 2, J. J. Cawthra (Cambridge,; 3, D. Grant. Time, 4 min. 31 sec.

120 *yards hurdles*—1, S. S. Jones (New York A. C.); 2, P. Watson (Toronto Lac.). Time, 16 5-8 sec.

Running high jump—1, S. S. Jones, 5 ft. 11 1-2 in. 2, G. B. Scholl (Johns Hopkins Univ.). 5 ft. 10 in.

Running broad jump—1, H. A. Bray (Toronto Lac. and A. A.), 21 ft. 8 in.; 2, G. B. Scholl, 20 ft. 6 in.

Pole vault—1, G. McK. Hall (Buffalo Y.M.C.A.), 11 ft. 2 in. (new record for Canada); 2, A. G. Anderson (New York A. C.), 10 ft. 11 in.

Throwing 16 lb. hammer—1, J. McArthur (Montreal Police A. A.), 123 ft. 7 in.; 2, T. O'Rourke (Toronto Lac. and A. A.), 122 ft. 6 in.

Putting 16-lb. shot—1, F. G. Beck (Yale), 42 ft. 10 1-2 in.; 2, A. Smith (Montreal Lacrosse Club), 41 ft. 6 in.

Throwing discus—1, T. O'Rourke, 103 ft. 11 in.; 2, T. C. Flanagan (St Mary's A. A.), 103 ft. 9 in.

Throwing 56-lb. weight—1, T. O'Rourke, 28 ft, 5 in.; 2, A. Stemman (Toronto Police A. A.).

NEW RECORDS

At Louisville, Ky, Oct. 4, John Flanagan threw the regulation discus, 4½ lbs., 119 ft. 6 in., breaking the record of 118 ft. 9 in. made in 1897 by C. H. Henneman, Chicago A. A. At Long Island City, Sept. 2, he threw the 16-lb. hammer 171 ft. 9 in. from a seven-foot circle, breaking his own world's record of 169 ft. 4 in. At Paterson, N. J., Sept. 14, M. J. Sheridan, Pastime A. C., threw the discus 120 ft. 7¾ in., a new world's record, if accepted.

CHARLES E. PATTERSON.

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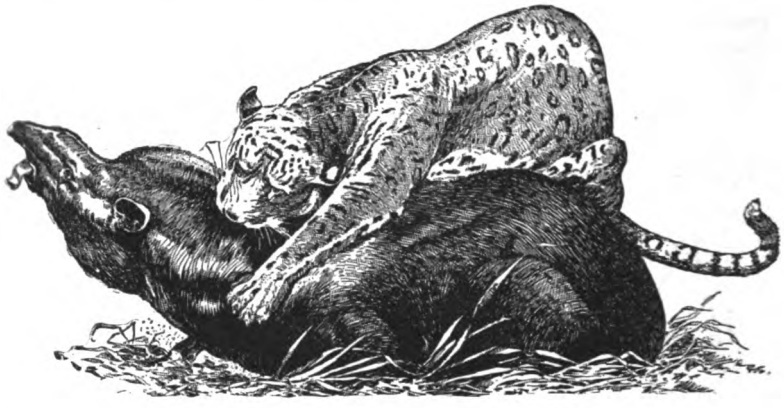

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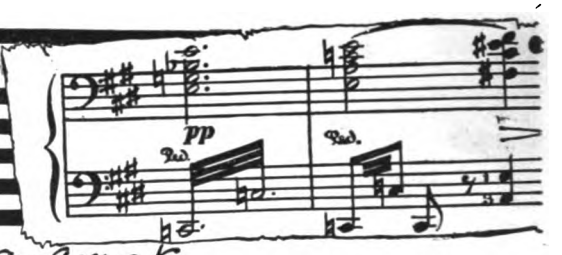

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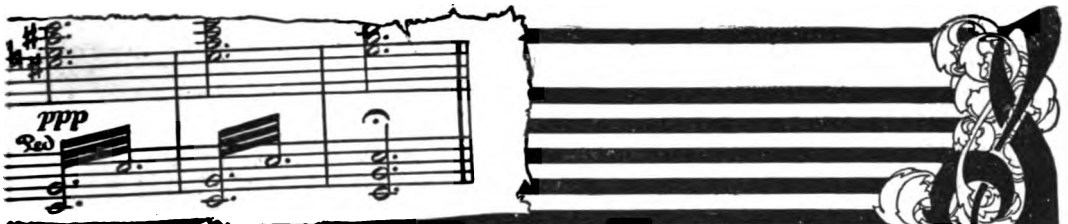

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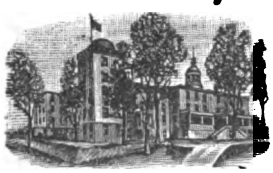

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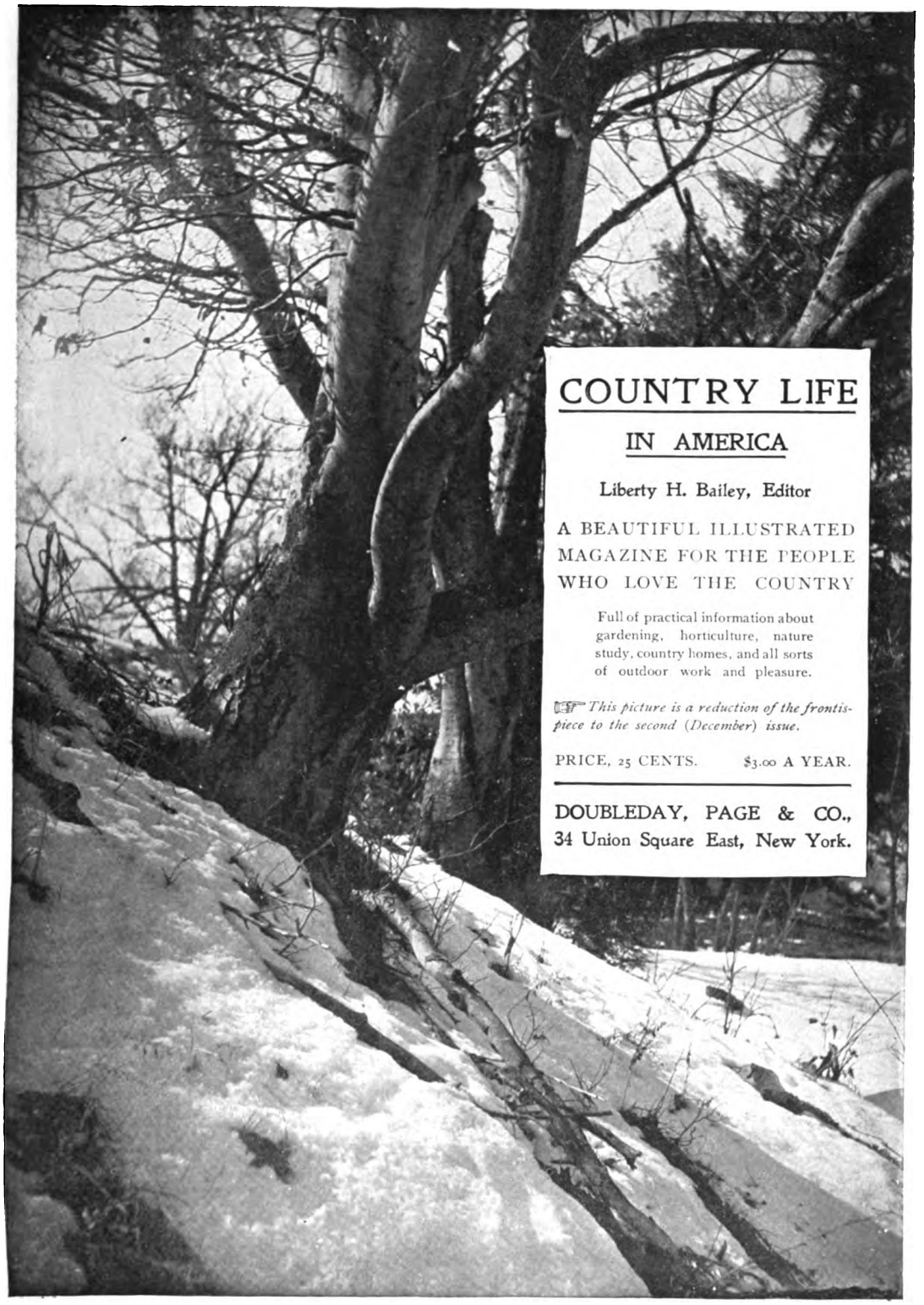

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OUTING

VOL. XXXIX. DECEMBER, 1901. No. 3

THE WILDERNESS HUNTER

By Owen Wister

IF at no moment of your youth or of your age you have longed to wear a buckskin shirt and leggings, and clad in this dauntless attire to shoot a grizzly bear, you may skip everything that I have to say. My words can hold little import save to him who, waking or sleeping, has at some time dreamed of the western mountains as his heart's desire. Never to have done this is never to have been a boy; and every boy who has so dreamed must even in his oldest age, I think, retain somewhere in his depths a fire that will glow still when he hears tales of the buckskin shirt.

So far from being ashamed, it is with unabated pride that I can discern thirty years distant in my memory the figure of a schoolboy who forsook the populous playground often during the hours of games and riot, and rejoiced to escape into the secret pine woods. No bears were there for him to meet; squirrels, rabbits and partridges, these were the most dangerous creatures that he had any chance to encounter. Neither did he wear a buckskin shirt, nor carry a trusty rifle; but at least his feet were shod in moccasins. These he had been able to purchase with his pocket money, sending for them to Quebec. And to mark how noiselessly he could step through the forest in moccasins lifted his spirit to such elation that he endured almost with gratitude the inconvenience which the sharp stones not infrequently caused the soles of his feet. What was pain except a glory and a part of the whole splendid business? Meriwether Lewis must have endured similar discomforts with his first moccasins. So the boy prowled through his pine woods until the distant bell recalled him from the upper waters of the Missouri to Todhunter's Algebra for Beginners.

This boy that I have mentioned to you lived to see the upper waters of the Missouri and to forget the edifying pages of Todhunter so efficiently that at the present hour did his life hang upon it he could not solve a simple equation. But as I think of him and his experiences (which are indeed nothing to boast of) I cannot help feeling sorry for his children when they shall grow up. They, too, will read tales of Meriwether Lewis; and if they fail to develop ambitions regarding a buckskin shirt and a trusty rifle, they had better not confess it to their father. But what are they going to do about the upper waters of the Missouri? What sort of waters will these be when we are all twenty years older? Will there be any waters at all? If the farmers have not by that time taken them from their channel to sink them in ditches through their fertile acres, or if the electricians have not turned them to propelling street cars and lighting bar-rooms for the commercial traveler, what may prosperity not have done to befoul them with sewage and paint them with the refuse of a thousand mills?

Are you tempted to think that I have set too much for the next twenty years to accomplish in the way of improvement on the upper waters of the Missouri? Then

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call it fifty if you please, and let us say that it is our grandchildren who will not find much trout fishing in those waters. But bear in mind that men not yet forty have seen the buffalo like armies along the banks of the great river. It is but an accident that I did not see this sight. And the things that I did first behold in that wild country can be witnessed no more. From the windows of your Pullman sleeping car (you did not have to get out of the vehicle) you could have watched large herds of antelope staring at your train as it crossed the plains fifteen years ago. To see an antelope to-day you must visit a Zoological Garden, or else get out of your Pullman and search far into the wilderness. These destructions, these vanishings, have happened within the lives of men in whose hair no gray has come yet. But this seems nothing. Let us step back a little further into history.

If you are eighty years old you can easily remember the 10th of July, 1834. It well may be that upon that day nothing of moment happened to you; you may have been merely skipping about with fingers still a little damaged from the burns which they received on the fourth day of that month. But whatever you were doing, Captain Bonneville was having a fine time along the banks of the Columbia on the 10th of July, 1834.

"There was abundance of such hunter's fare as the neighborhood furnished; and it was all discussed with mountain appetites; . . . but the Canadian veteran had been unlucky in some of his transactions; and his brow began to grow cloudy. Captain Bonneville remarked his rising spleen, and regretted that he had no juice of the grape to keep it down.

"A man's wit, however, is quick and inventive in the wilderness; a thought suggested itself to the Captain, how he might brew a delectable beverage. Among his stores was a keg of honey but half exhausted. This he filled up with alcohol, and stirred the fiery and mellifluous ingredients together. The glorious result may readily be imagined; . . . the first deep draught washed out every care from the mind of the veteran; the second elevated his spirit to the clouds; . . . he now became glorious; talked over all his exploits, his huntings, his fightings with Indian braves, his loves with Indian beauties; sang snatches of old French ditties and Canadian boat songs. . . . The morning found him still upon the field of action, but in sad and sorrowful condition."

Yes, in sad and sorrowful condition, it is to be feared. And it were doubtless pious to express the hope that this experience was the first and the last of the kind which ever overtook the veteran Canadian. Honey and alcohol stirred together in a keg upon the wild banks of the Columbia, and the Hudson's Bay Company and the United States Army consequently singing all night! Alas for the morning!—and yet if you will open at the page where this circumstance is narrated, you will read between the lines of Washington Irving that this respectable author was plainly sorry he had not been there himself to assist in the choruses. His ambling and pleasant prose places before you the whole picture: The wide region, the unknown world, the meeting of the parties, their adjacent camps upon the plain, and their Homeric conviviality, with buffalo to hunt in the morning. That is what was doing on the banks of the Columbia at the time when you (if your years be eighty now) had numbered thirteen summers. And what was doing on that day at Chicago? Well, at Chicago they had recently organized a town with five trustees, and I suppose that this town of Chicago may then have been able to count so many as 700 inhabitants.

Great days for the buckskin shirt and the trusty rifle! And once again we will glance at good Captain Bonneville a few months later during his expedition. He is now in camp and hobnobbing with the Nez Percés and the Shoshones:

"Matters were going on thus pleasantly and prosperously, in this motley community of white and red men, when, one morning, two stark free trappers, arrayed in the hight of savage finery, and mounted on steeds as fine and fiery as themselves, and all jingling with hawk's bells, came galloping, with whoop and halloo, into the camp. . . . Captain Bonneville, it is true, maintained always a certain degree of law and order in his camp, and checked each fierce excess; but the trappers, in their seasons of idleness and relaxation, require a certain degree of license and indulgence, to repay them for the long privations, and almost incredible hardships of their periods of active service." Considerate Captain Bonneville! Roguish old Washington Irving! You can

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hear the respectable chronicler fairly lick his chops all through this adventure—which becomes highly romantic before we get through another page.

Captain Bonneville, you will observe, figures within the memory of many living men and women, so close to us is our ancient history. Therefore let us take one further step backward to a certain day when (if you are eighty years old) your father may have been playing his part in the formation of our Republic. Listen to Thomas Jefferson instructing Meriwether Lewis what his duties are to be as he penetrates the unexplored solitudes of our Louisiana purchase:

"Although your route will be along the channel of the Missouri, yet you will endeavor to inform yourself, by inquiry, of the character and extent of the country watered by its branches, and especially on its southern side. The North River, or Rio Bravo, which runs into the Gulf of Mexico, and the North River, or Rio Colorado, which runs into the Gulf of California, are understood to be the principal streams heading opposite to the waters of the Missouri and running southwardly. Whether the dividing ground between the Missouri and them are mountains or flat lands, and what are their distance from the Missouri, the character of the intermediate country, and the people inhabiting it, are worthy of particular inquiry."

Here is geography for you! To the author of our Declaration of Independence it seemed possible that the Rio Bravo and the Missouri might head upon opposite sides of the same hill, or at least have no very inconvenient distance lying between their sources. We need not on this occasion search the map to make calculations how far out of the way was Thomas Jefferson; his error was in that day inevitable, and about on the same scale as the error of the Englishman who went for a drive in New York some ten years ago. His friend asked him, would he like to see the park? and the Englishman responded with some hesitation, Yes, if it were not too far for an afternoon drive. He had imagined it was the Yellowstone Park to which he was to be driven that afternoon.

So Meriwether Lewis went up the Missouri and obeyed the behests of Thomas Jefferson and the tale of his doings has made boys restless ever since it was told. I wonder how many thousands of our American youth have burned with desire to sit at council with the Tetons, or to feast their eyes upon Lookout Bend or Bad Humored Island? I wonder how many in their hearts, nay, with their feet also, have struck out upon that epic trail across our continent, lured by the spell which Meriwether Lewis has cast behind him forever? His faithful record, where nothing is passed over, and where Latin is employed when English would be indecorous, remains our native Robinson Crusoe. And all these wonderful things, mind you, these dangers and escapes, these pipes of peace, these new worlds of adventure to conquer, are not yet distant quite one hundred years from our own day. Our continent, as Meriwether Lewis found it, had been like that for who knows how many centuries? When Pericles was dining with Aspasia the upper waters of the Missouri could not have been greatly different from what Clark and Lewis discovered them to be. The buffalo was flourishing when Nero was playing music at Rome. And the buffalo was flourishing almost the same in 1870. And now, thirty years after, where is the buffalo?

The buffalo still walks the earth in thinning ranks which our Government with no great success strives to preserve for the benefit of posterity; and these ranks you may, if you are lucky, behold in the Yellowstone Park. And here and there nearer home you may find a somewhat forlorn specimen of the creature ruminating in a city park. But his contemporary, the wilderness hunter, is not preserved by the government nor fed in any gardens at the public expense. What type of man was he? Well, generalization is none too safe, and we must not draw too precise a picture. From the words of Mr. Irving already cited you will be able to find something to begin the likeness. The free trapper, weatherbeaten and tough with hardships, galloping into camp with his fine horse and his splendid trappings, hungry for a boisterous holiday—here are some items in the way of identification. He made his hard livelihood by exchanging the skins of wild animals for his necessities and luxuries. What these were you need be at no pains to guess. He lived many hundred miles from the nearest outpost of civilization, and you may be sure that he did not thus live for the sake of riches. I will venture to generalize thus much about the man: He was no lover of cities. In

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the supreme court of his heart he had filed a protest against civilization. In the days of Bonneville this was easy to do. If any American citizen fell out with civilization in 1833, he did not have to go very far to find a realm entirely his own, where neither streets nor voices could offend him. That is as definite an account as I can give of the man's type. You know that he liked to dress in a wild costume, and that a year or two of his wild existence found him returned to the primal man, whom we may call the Old Adam. We shake our heads discreetly over Old Adam; and yet I know not what we should do without him. I imagine it is he whom we have re-baptized somewhat lengthily as the Instinct of Self Preservation. So you must just think of Old Adam dressed in buckskins, rushing after the buffalo, bringing down the grizzly bear, and making picturesque love to a redskinned maiden. I can get no nearer the type. And, since no type can become fully visible without the full environment that its nature cries for, I can scarcely tell you where to-day you would find a perfect specimen of the wilderness hunter. As the buffalo era waned, and the cattle era followed it, the cowboy appeared on the scene. I do not think that in fiber he differed materially from his buffalo-slaying predecessor. A new environment put a new fashion of dress upon his masculine frame, and taught him dexterity with the rope. We may fairly call him the younger brother of the wilderness hunter. And now he also is gone, and no younger brothers can ever succeed him. For civilization has conquered and annexed his once independent kingdom, and has filled this with its degraded scourings. So nowadays (except for old specimens whose day is done) you must look into a man's heart if you want to find the wilderness hunter; and if you chance upon a heart which, when ancient borderland tales are told, beats rebelliously beneath its city waistcoat, you have come as near finding what you seek as is now any longer possible.

The wilderness hunter, then, the buckskin shirt and the trusty rifle, are they no longer to have occupation? We cannot answer No, because man is various in his powers, and when one good thing is over and done with, he turns actively to something else. But truly indeed the last arter century has seen the ground reft from the feet of the wilderness hunter. When he accompanied Meriwether Lewis, Paradise was most certainly his, and his it still was almost as entirely in the days of Captain Bonneville. The death stroke came to him upon that memorable day when California and the Atlantic were joined by two continuous strips of iron. He did not know that the bell of the locomotive was tolling his fate. On the contrary for a while his Paradise was thus merely brought the nearer to him. For twenty miles each side of the railroad track lay still the wilderness unbroken. He could step off the train and in an hour be lost among the solitudes that he loved. The buckskin shirt and the trusty rifle still felt no invasion of their realm. They but faintly suspected that anything was wrong when titled foreigners appeared in their midst. They guided these strangers to their pastime, and all seemed well. But presently new strips of iron began to creep across their wild garden. If they rode north, there was the smoke of the train staining the pure skies of Montana. Southward through Colorado, New Mexico, Arizona, the armies of progress pushed their way with bells and whistling. The buckskin shirt and the trusty rifle began to recede into the mountains. And the rest is so soon told that it need not be told at all.

What then will this fellow do in our new century? Where can he hide himself from civilization? Our own West is as dead as a doornail so far as he is concerned. He has tried South Africa; but only see what is in store for that part of our globe! It will presently be as tame and as tiresome as Nebraska. Our Klondike gold fields will soon be shopworn; their adventurousness will be shabby. You cannot live at the North Pole even if you succeed in reaching it; the South Pole offers apparently still fewer attractions; and China, like Japan, will be ironed and flattened into trousers before we are done with it. In brief, all wild things must share the doom of the buffalo, and solitude is being elbowed from the world. Like a maroon upon an island which high tide covers, sits the wilderness hunter with his eyes upon his narrowing territory. He can scarce take a step but he trespasses upon somebody's back yard. His game is up, fences surround him, and clothes-lines not infrequently flap in his face. The generation of him which has known freer

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days sits idle now, and the buckskin shirt and the trusty rifle hang on the wall. He sits telling old tales, while the ramparts of cities advance upon him. And presently he will be gone. The young men that shall henceforth be born can never know the wilderness, and in cities and in the pastoral country they must find both their work and their play. And yet nevertheless I believe that at some of their hearts there will sit forever a craving unsatisfied.

For we may make this classification of mankind: Those who swallow civilization whole, and those who live rebels against it. It is not worth while to waste any more objections upon civilization than upon the force of gravity, let us say; and it is only the fool that does not adjust himself to the inevitable. Therefore the sons of the wilderness hunter will go upon the even tenor of their way like the sons of other men. But the voice of the western mountains will call them secretly and make them restless sometimes, even though they may not fully comprehend its meaning. In all adventures which good fortune brings them they will actively rejoice; they will engineer fast express trains, they will climb into burning houses, they will joyfully enlist in times of war; and when none of these chances for their energy befall them, you will, if you can read their hearts, discern beneath their civilized demeanor their eternal protest against civilization, and a life in which common sense bids them to acquiesce. And whenever they come upon the story of Meriwether Lewis, you will discern an answering spark in their eyes.

CHRISTMAS IN THE FOREST

By Aloysius Coll

SOFTER than footfalls cushioned in the deep
Moss of a dream, far Christmas revels creep
  Into this woodland heart, with chime and cheer
And season-joy that peopled cities keep.

Silent the yule-tide spirit of the wood;—
'Tis perfect, though, if only understood,
  For templed oak and sun-aspiring pine
The Sovereign Giver gave his greatest good.

No brighter burns the Birth-Star of the East
Where altars blaze, and answer choir and priest,
  Than here, in world-redeeming solitude,
She guides her Magi—Nature, Man and Beast.

"Good will to men!" Ah, shepherds watching here
Are brothers bred in hunger, thirst and fear—
  The gold and myrrh and incense offerings
Souls meet to make when hearts cannot be near.

Lead on, O star, from God to his design,
And light the snowy tapers of the pine!
  Sing out, O angel voices, to the wood,
And make your happy tidings hers and mine!

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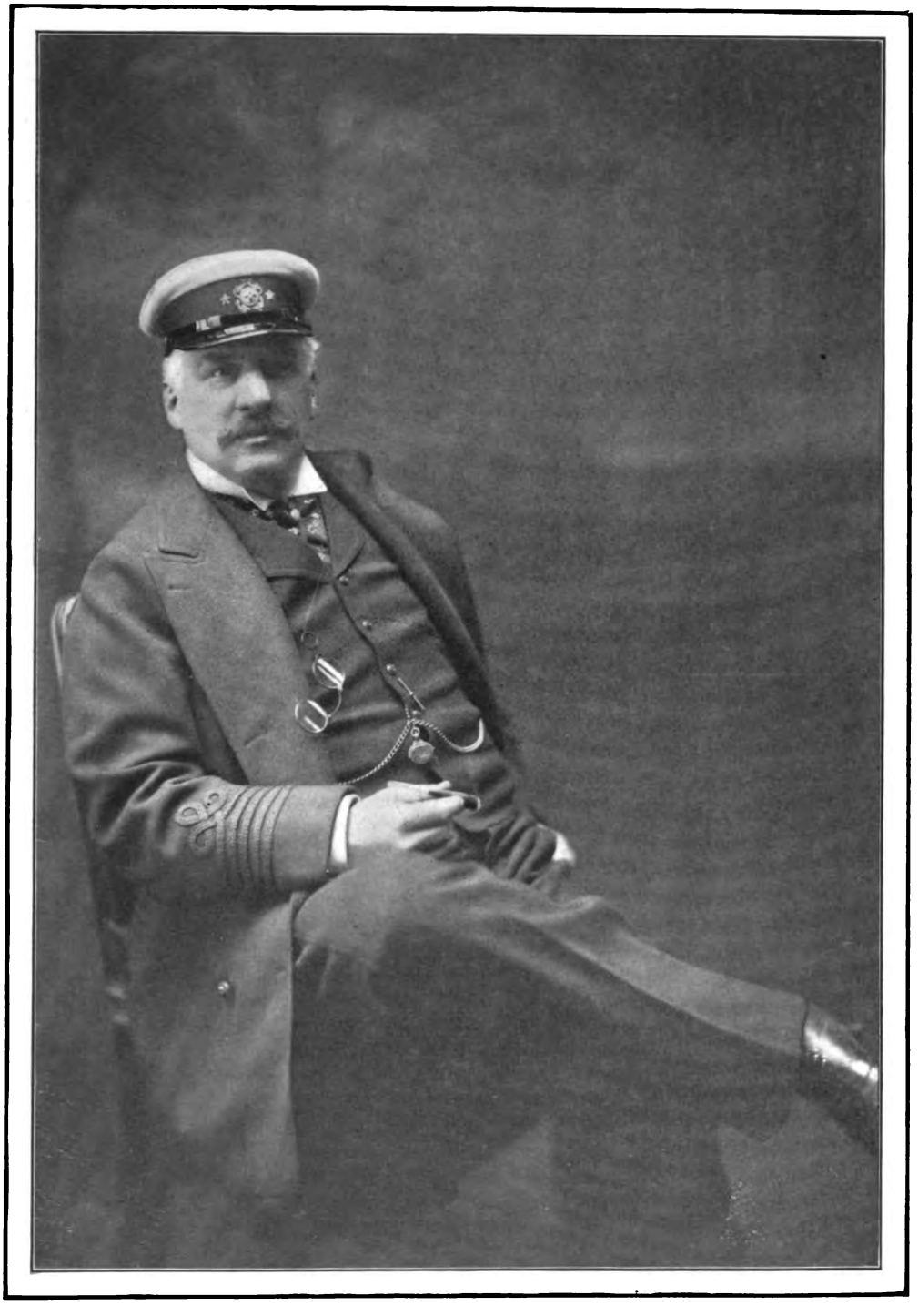

J. PIERPONT MORGAN, OWNER OF THE *COLUMBIA*;
EX-COMMODORE OF THE NEW YORK YACHT CLUB.

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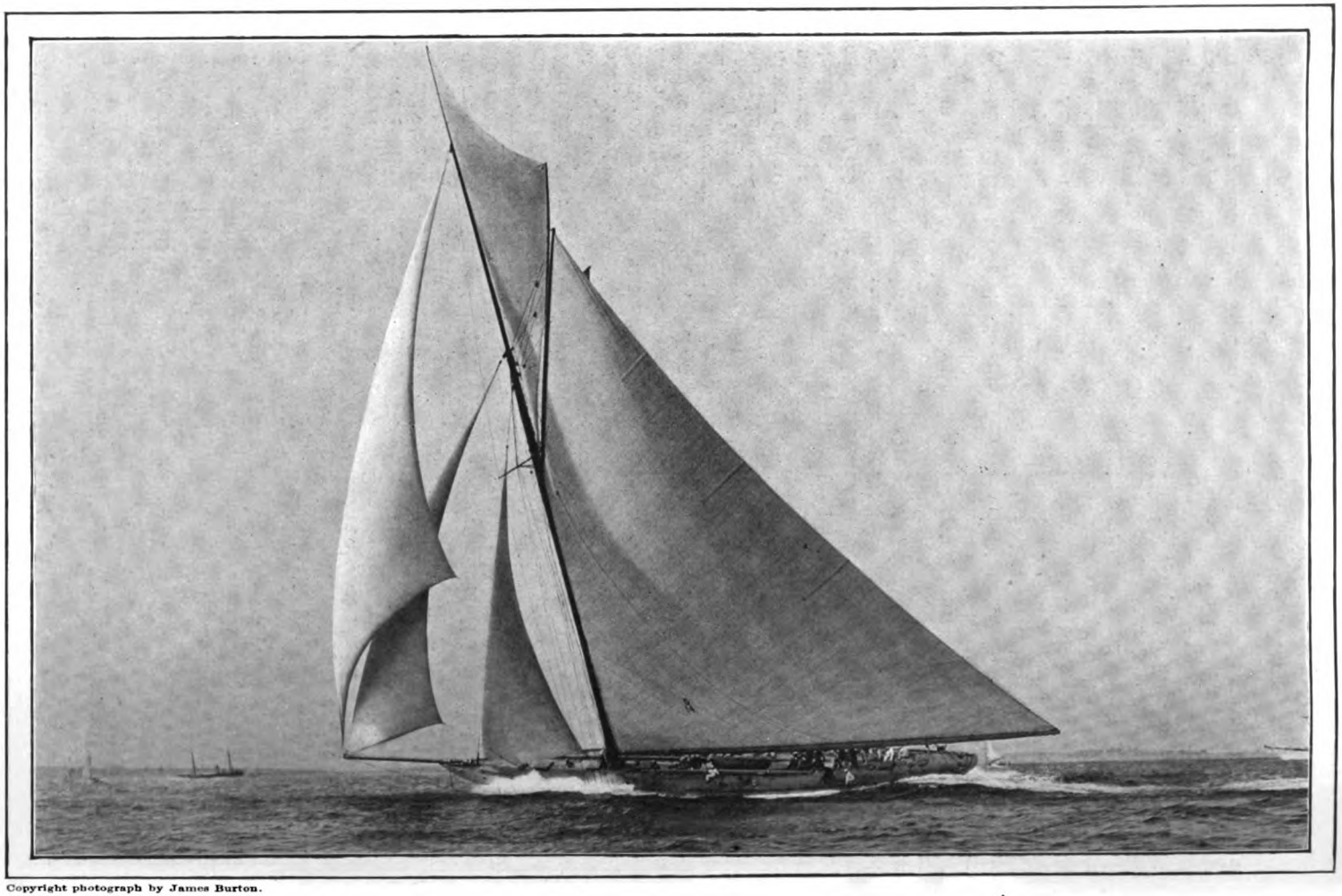

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THE CHAMPION *COLUMBIA*—TWO-TIME SUCCESSFUL DEFENDER OF THE *AMERICA'S* CUP.

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THE MOOSE

WHERE IT LIVES AND HOW IT LIVES

By Andrew J. Stone

THE moose is distinctly the most individual character among the deer family. It is the giant of the *cervidæ*. It is the hardiest and the most capable of self-protection. It will be the last of the deer family to become extinct in America, unless perhaps with the single exception of the white-tail deer in the rugged wilds of southeastern Alaska, and in a few favorable localities in the States where well protected. It roams more of the forest country of America than any other species of the deer family. The greatest and wildest wilderness in the world is its home. Nearly all of the forest country of the whole of North America north of the United States, and a part of some of our northern tier of States, is occupied by it, and the term "forest country" is here meant to apply to all the country upon which timber grows—even though ever so sparse and dwarfed. It is the most cunning of all the large animals of North America and the most capable of eluding its pursuers.

Stories of its wonderful size, of its magnificent spreading antlers, of its capabilities of detecting and escaping enemies, of its wonderful strides in running and of its mysterious and noiseless movements, have long been favorites around the campfire, at the club and around the home fireside. The man who has acquired so thorough a knowledge of the habits of the moose as to enable him, unaided, to seek the animal in its native haunts and by fair stalking bring it to bay has reached the maximum standard of the American big game hunter.

Species and Characteristics.—There are in America two known species; the *Alces americanus* of Maine and Lower Canada and *Alces gigas* of the Kenai Peninsula, Alaska. The immense expanse of country between these widely separated localities is inhabited by the moose and whether the two species blend in this intervening country, gradually losing their individuality or specific character, or whether the boundaries of the range of each are clearly defined, or whether there is another species in the great country between the two localities from which these types have been described, is a matter yet to be determined.

When we consider the many surprises the North has furnished us within the last few years in the way of new forms in large mammals, we need not be surprised if the great moose range on the headwaters of the Liard, Peace, Stickine and Yukon would give us the third variety. The animals of that country are very large, are darker than the moose of Maine and Lower Canada—even darker than those of the Kenai, yet their antlers are not nearly so massive as those grown on the Kenai Peninsula. These two facts were obtained by personal observation, but I never secured specimens sufficiently perfect to admit of the establishing of their identity. There is a large area of country farther north in which I am convinced the moose differ in character from those in any of the country just mentioned, and one may readily infer there is yet much to learn about the moose.

Just how the moose from different sections of their ranges may vary in size is yet a matter largely of opinion. A more complete compilation of carefully made measurements from a series of adults from widely separated ranges will be necessary to determine this, as well as other points of great interest concerning this animal.

The moose of the Kenai Peninsula are reputed by many to be the largest in America, and from such measurements as it is possible for me to secure I might accept that conclusion. But there are so many magnificent ranges from which we have no data, that we must await definite knowledge. In the Cassiar Mountains and on the upper Liard River in northwest British Columbia and again in the country around the headwaters of the McMillan, Stewart and Peel rivers, Northwest Territory, are the two ideal moose ranges of America. From neither have we a single specimen to give us positive knowledge of the character of the local moose. Nor has sufficient knowledge been obtained to warrant a description.

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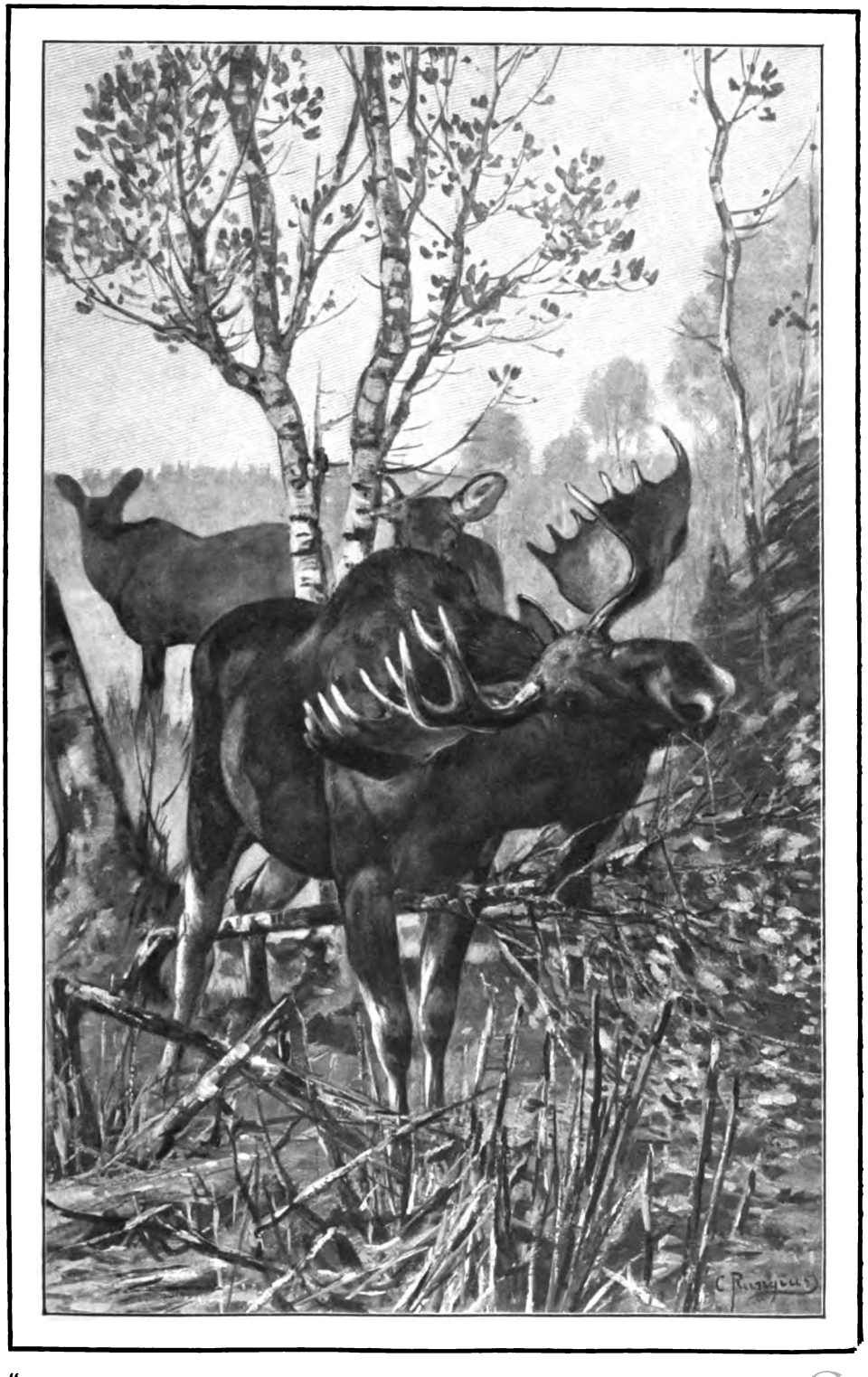

"AND WILL RIDE DOWN A YOUNG TREE TO SECURE ITS TENDER TOP BRANCHES."

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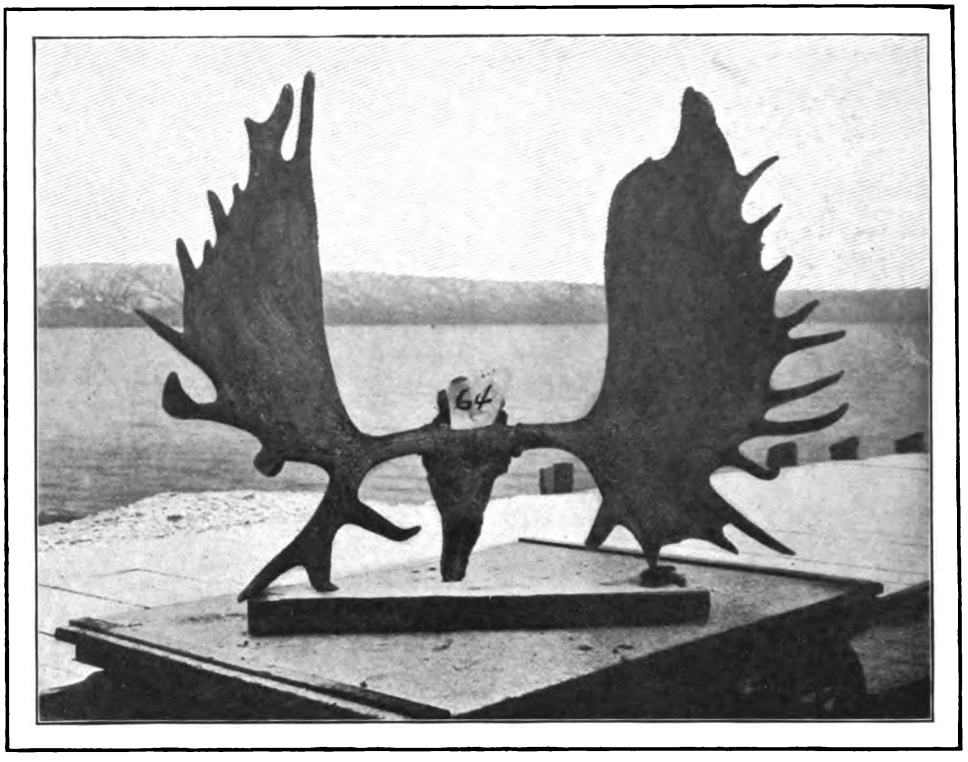

SPREAD SIXTY-FOUR INCHES.
This head and those on following pages are from the Kenai Peninsula.

To the north of the Porcupine and around the headwaters of the Colville rivers in Alaska is yet another large moose range from which we have no real facts to rely upon. We have, in museum collections, a few specimens from southern Canada and Maine, and again from the Kenai Peninsula in western Alaska, and these persuade us that the animals of the Kenai are not only larger than those in Canada and Maine, but they grow a much larger head of antlers.

There is no other wild animal in America that grows so rapidly as the moose. The calves are small when very young, but they grow with almost startling rapidity. A calf secured by me on the Liard River, in the latter part of May, and not more than one week old, measured: length, 37 in., tail, 1½ in., femur to humerus, 20½ in., across chest, 4½ in., hight at shoulders 33 in., depth of body 9½ in., hight at elbow, 21 in. One secured by me on the Kenai Peninsula October 30th, evidently just about five months old, measured: length, 88 in., tail, 4 in., femur to humerus, 54 in., chest 11 in., hight at shoulders, 67½ in., hight at elbow, 40 in. It had grown in five months 41 in. in length, 34½ in. in hight, 6½ in. in width of chest and 19 in. in length of foreleg below the elbow. A carefully estimated weight of the five-months-old calf as it stood alive was fully six hundred pounds; the one a week old about sixty-five pounds. Comparative measurements prove, however, that the first season experiences the most rapid growth. It is plain the animal does not grow so fast after it leaves its mother and that the rapidity of growth is decreased as it nears maturity. This would vary with different animals and there are individual animals which attain a size perhaps much greater than that of their neighbors, but my experience teaches me that adult animals of any given species are very uniform in size, much more than they really look to be. The tape line in the hands of one who knows how to use it reduces the size of what seems to be an especially large individual to a place very near that of its relatives. It is the result I have also found in many other species. The general contour of the

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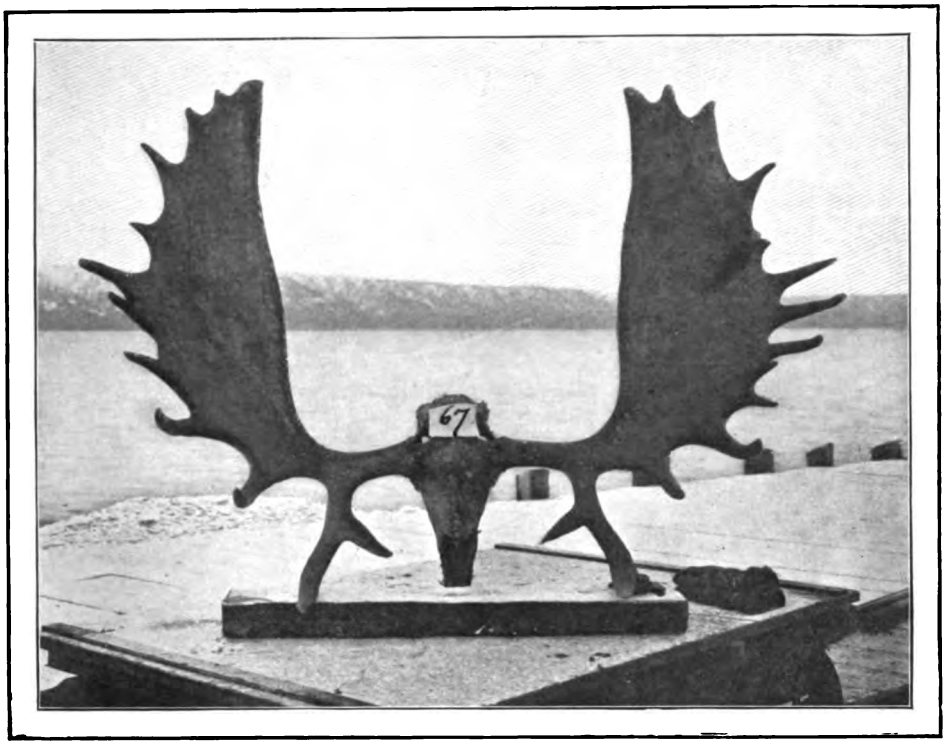

SPREAD SIXTY-SEVEN INCHES.

surface anatomy of animals varies so exceedingly as to influence their appearance and often greatly deceive one concerning the animal's real size. I have looked at animals and remarked before measuring that they were very large or very small, only to find their actual size, when the tape line was applied, to vary very slightly from the uniform size of adults of the species. One who did not understand measuring animals might have made any of the above adult moose twelve inches taller and have really thought he was making an honest measurement; but a large bull moose is a heavy animal and does not stand on stretched legs or on the tips of his long toes; so, too, the top of his shoulders is at the surface of the skin and not at the end of his long mane.

I have collected many interesting statistics during my travels through the great country of the moose, bearing upon their size, weight, measurements of hoofs, joints and many parts of the animal's anatomy. The weight of the four quarters of adult moose as they are sledded in to the Hudson Bay Company's posts in winter, when they are generally poor, ranges from three hundred and fifty to five hundred pounds. This would refer to females as well as to males. I have taken from adult males very poor hams which weighed as high as one hundred and ten pounds and I know of a fat bull killed near Fort Norman on the Mackenzie whose four quarters weighed seven hundred pounds.

When on the Liard River in the winter of '97–8, an Indian brought in a skin from a bull moose, just as he would take it, minus the skin from head and legs. It weighed 90½ lbs., after fleshing 72 lbs., after hair was removed, 51½ lbs., made into rawhide, 9½ lbs., into dressed skin, 5½ lbs. This was not a large pelt. Many of the hides complete as the naturalists will take them, weigh when green, close to 150 pounds.

From careful observation, I believe the moose to reach maturity at about six years of age. To just what age it may live must be conjecture, but approximately I would judge from what I have been able to learn that the maximum period is not far from twenty years. Old animals are easily distinguished by their worn and broken

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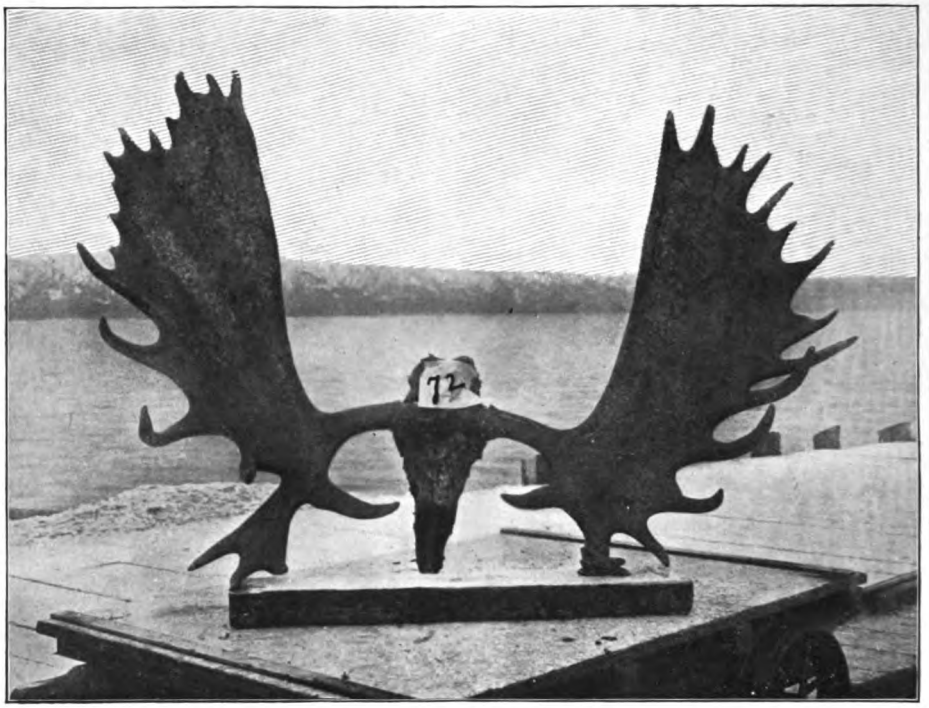

SPREAD SEVENTY-TWO INCHES.

teeth and by the gray hairs around the nose and at the edge of the hoofs.

The color of the moose changes from an ashy brown to almost black, varying among animals of different ages and with the seasons of the year, and with different localities. The moose of Maine and Lower Canada are much lighter in the color of the body than those farther to the north and west and their legs are almost white, while those on the Liard River and the Kenai Peninsula have quite dark hair on their legs. The hair is very coarse and in the winter is very thick and long, while, for additional warmth is grown a light coating of soft wool-like hair or fur of a medium shade of brown. I made what I consider a rather remarkable discovery in specimens killed by me on the Kenai Peninsula; between the toes of these animals grew a bunch of hair of a perfect emerald green.

The young calves are of a light red with dark dorsal stripe. With the coming of the fall their coats grow darker and the dorsal stripe loses its prominence through the [illegible]hading up to it. The moose of the Kenai has only very recently been described by Mr. Gerrit S. Miller, Jr., of the Biological Survey at Washington as *Alces gigas*. He classifies it as being a larger and more richly colored animal than the eastern moose. In his description of "A new moose from Alaska," he says: "The moose of Alaska has long been known to be the largest of the American deer, but hitherto it has not been directly compared with true *Alces americanus*." The color of the *Alces gigas* is not so dark or rich as that of the Liard River moose and when we obtain specimens from other parts of the North, from the center of such great ranges as that of the Liard or Koyukuk rivers we will likely find animals fully as large as those of the Kenai Peninsula but not wearing such large antlers.

I am thoroughly of the belief that the North will produce a third variety of moose (and fourth is not impossible), but only a careful and intelligent study of these animals by one trained to the work, with complete series of specimens and full measurements and data, from the ranges mentioned, can determine sufficiently their relative

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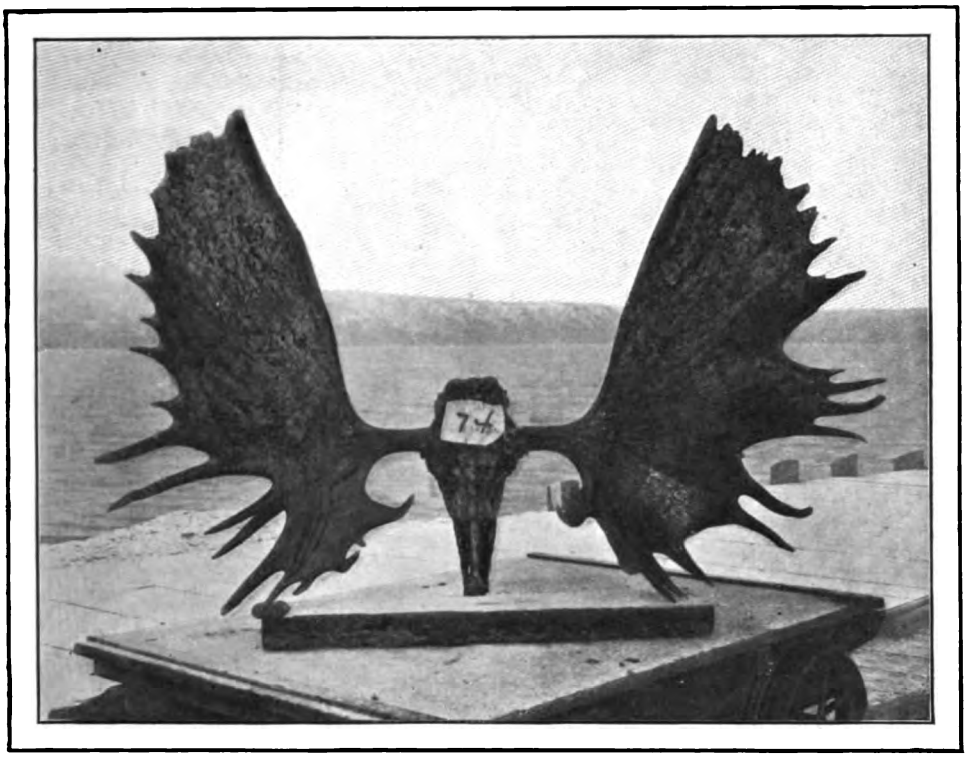

SPREAD SEVENTY-FOUR INCHES.

character, size and habits; and ultimately decide the question of species.

More is known of the antlers of the moose than of all the rest of its anatomy. It is not that they are really the most important feature of the animal, but because few perfect specimens have ever been taken by naturalists; and the interest of the average sportsman centers in the head of antlers. I have seen a great many heads from Lower Canada and Maine, the Liard, the Mackenzie and the Yukon rivers, and the Kenai Peninsula, and there is no question that the antlers grown by the moose of the Kenai are not only very much the largest in America but of distinctive character. The spread is greater, the palmation wider, and the general contour very different from those observed from any other locality.

Nine heads secured on the Kenai, fall of 1900, ranged in spread from 56 to 74 inches. The average spread of the nine heads was slightly above 65 inches. A head from Maine or Lower Canada above 60 inches in spread is rare and what might be considered ten good heads would probably average in width but slightly over 50 inches. The antlers lose the velvet the last of August and the first of September. Adult males shed their antlers the latter part of December, but young males usually carry theirs from thirty to sixty days later, and I have heard of instances where they were retained until the first of April but such cases must be very rare.

The dewlap or bell worn by the bull moose is always very narrow in the young animals, but often quite long. I have seen them almost a foot in length. As the animal grows older the dewlap grows shorter and wider, extending farther along the throat, until in old animals, it becomes a long, but very shallow pouch.

Range.—The range of the moose in America extends as far east as New Brunswick and as far west as the limits of tree growth on the Alaskan peninsula, south into Montana and Idaho,* and north to within a few miles of the Arctic coast or to the limits of tree growth. Only a small percent of all this

*A very few are said to still range in the Wind River Mountains, Wyoming, where once they were fairly plentiful.—EDITOR.

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MAN FIVE FEET ELEVEN INCHES TALL.

vast territory is entirely lacking in moose, though they are very unevenly distributed.

They do not inhabit that large tract of land known as the Barren Grounds which lies between the Mackenzie River and Hudson Bay; and the strip of country extending to Lake Superior east of south of the Barrens is almost or completely lacking in moose, although the greater part of it would seem well adapted to their requirements.

The moose is not a migratory animal, but frequently surrenders territory on account of the encroachments of civilization, and perhaps at times from other causes, but what might seem surprising to even the well-informed upon the subject is that they have, during the past fifty years, acquired a large amount of territory in the North. I believe they have acquired within our present history of them almost or quite as much [illegible]ory as they have lost and that their range is almost or quite as large at the present day as it ever has been. They are now numerous in a very large territory in northwest British Columbia, through the Cassiar Mountains, on Level Mountain, and throughout the headwaters of the Stickine River, where thirty years ago they were unknown. They are now abundant on the Kenai Peninsula, Alaska, and in other sections of the North where at one time they did not exist. Acquisition of territory by so wary an animal as the moose can only be accounted for in one way. Many years ago the Indian tribes occupying these sections were very numerous and inimical to moose life, but, since the Indians have dwindled from thousands to insignificant numbers, the moose finds comparatively unmolested life. This I know to be the case on the Kenai and in the country referred to in northwest British Columbia; and there are many similar changes in conditions in other parts of the North, notably in the Nahanna River country, north of the Liard, where the entire tribe of Indians that once hunted the country have died out, to the very great increase of moose.

Moose are now extinct in all the eastern states except in Maine where they are more plentiful and more hunted than in any other section in America. That they continue plentiful is due to the excellent game laws and the fact that there is no avenue of escape. In Canada the situation is different; the moose have been driven back north, into an unlimited country of retreat. In Washington, Idaho, Montana, and in some parts of southern Canada moose are almost extinct. They are found to some extent in all parts of the Mackenzie and

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Yukon River basins; and they are most abundant in the countries of the two Nahanna Rivers which empty into the Liard and Mackenzie respectively; in the country of the Gravel River, a tributary of the Mackenzie; in the headwaters of the Stickine and Liard Rivers; in the region of Teslin Lake and north, just west of the Rockies to the headwaters of Peel River; on the upper Koyukuk north of the Yukon; on the Tananna south of the Yukon; on the Kenai Peninsula; around the head of Cook Inlet; and they are also plentiful in most of the timbered regions west of Hudson Bay.

They do not approach the Pacific Coast in Washington, British Columbia or in southern or southeastern Alaska, but on the Kenai and Alaskan Peninsulas they range down to salt water.

The Mackenzie Delta was at one time a favorite range of the moose, but there they have been fearfully reduced in numbers. The Indians claim that several years of great spring freshets, which overflowed the islands at the season of the year when the calves are very young, causing death in the cold flood, was responsible for the great reduction in moose. Knowing the Delta I believe their theory correct. One Indian told me that for several years after the floods had subsided, he hunted the Delta and killed many cow moose, but they were always without calves. I sledded the length of the Delta three times and boated it once through its entire length and saw signs of not more than five or six moose in the six hundred miles travel.

Habits.—The habits of the moose vary with the different sections of the country in which they range. Animals like people to some extent must conform to their surroundings. The habits of the moose in the far North and West differ from those of southern Canada and Maine in many ways. In the North and West they do not yard up in winter and consequently do not live much on the bark of trees in that season, they do not feed to any extent on lily pads; do not run so much in the timber; and in some sections they range much higher in the mountains. Bulls do not, in response to the hunter's birch-bark horn call, in imitation of the cow, come down to the camp to be killed, like their cousins in Lower Canada and Maine.

Moose yard not from preference but from necessity. Their favorite winter range is in sparsely timbered countries, in the hills abounding in willows and alders. In Lower Canada and in Maine the snowfall is often very deep and when the winds drive it drifting into the open or partially timbered ridges, piling it deep among the willows where these animals like to feed, they seek timber where the snow, unaffected by the wind remains at uniform level. Experience has taught them where to find food at such times and they hunt the poplar or aspen groves and remain there indefinitely, living upon the bark they gnaw from the trees. Contrary to general impressions, the snow does not pile up so deeply in the North and consequently the animals remain in their favorite feeding grounds in the hills until the snow, either from the winds or the warmth of a coming spring sun, takes on a crust which will bear the wolf—the only enemy of moose beside man. When the snow is soft, the wolf never troubles the moose for well it knows this big deer is more than a match under such conditions; but when the wolf can run on top of the snow the moose is at his mercy; a band of them will bring down the most powerful bull. Unlike the caribou the moose is a heavy animal with small feet in proportion to its size, and they can never run on top of the snow. The wolves thoroughly understand this and a band will systematically plan an attack and execute their plans with deliberation. Surrounding the moose, some will attract its attention by jumping at its head, while others cut its ham strings. To escape this danger northern moose leave the hills in March and April and go down into the timber of the lowland where the snow is yet soft. The wolf does not destroy a very large number of moose, but when driven to extreme hunger will devise many kinds of methods for their capture, and, strange to say, will attack the largest bull as readily as the smaller cow. I account for this by the fact that as cows, calves and young animals, with sometimes an adult bull, all run together, their combined resistance is too much for the wolf, whereas some of the old bulls are frequently found alone. On the Liard River in the winter of '97–98 the wolves killed and ate a very large bull within one mile of the little fur trading post at which I lived. The snow at that time was soft in the hills, but crusted on the river where the winds swept up and down. Realizing they could not capture the bull

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in the hills, they drove him on to the river. The river was wide and as he went plunging through the crust into the deep snow beneath, they overtook and slaughtered him with ease. The moose knew his situation perfectly. There were wolves to his right, left and rear, but he simply miscalculated his ability to gain the opposite side of the river. Knowing the cunning of these animals, I believe his object in crossing the river was to reach some locality he knew, and where he would have a greater advantage over his enemies than in the country where they first disturbed him. Perhaps the snow was not of sufficient depth in the section he was leaving to give him the advantage he wanted and he knew a locality in which it was. Animals are much better reasoners than generally supposed and the moose is one of the deepest of the animal kingdom.

During the summer and autumn the moose of Lower Canada and Maine feed extensively on pond lilies and other succulent plants which grow in the marshy lakes and around the water's edge, and it is not uncommon for them to shove their heads completely under water in search of this kind of food. This character of plant life is much less common in the further North and the moose do not seem to feed upon it where it does occur.* I saw pond lilies growing in the Dease Lake country, in the Liard River country, about 60° N., to the west of the Mackenzie 66.30° N., in the country north of the Porcupine 70°, and on the Kenai Peninsula 60° N. Moose abound in all the localities mentioned, yet although I searched carefully for it, I could find no trace of their feeding on the lilies. Certain varieties of willows are their favorite food, though they feed upon alder, aspen and sometimes birch and balsam. They snap off branches, thick as one's finger, as readily as most ruminants nip blades of grass, and will ride down a young tree to secure its tender top branches. Lowlands along the streams and around the marshy lakes are their favorite feeding grounds in spring and summer, but with the approach of fall they begin to work their way into the hills. High rolling country which has been run over by fire, and followed by one or two seasons' growth of willows, is their very choicest feeding ground. The new growth of willows after a fire is always exceptionally luxuriant, the new shoots being large and tender. The short neck of the moose unfits it for feeding on the ground and rarely are the willows clipped below a hight of thirty inches. Their long heads and great hight naturally fit them for such feeding, but they seem to delight in doing so and will often stand on their hind legs to secure some especially tempting twig. I have seen where they have clipped branches fully ten feet above the ground.

It is during the mating season, September and October, that bull moose become most courageous and reckless. They are ready for battle and they do battle in royal manner among themselves for the possession of the cow.

While on the Kenai, in the fall of 1900, I heard three combats in progress during my hunt on the Peninsula. The thumping of their antlers can often be heard for a mile, and to the ear of the trained hunter the sounds are unmistakable. I had left camp but a couple of miles behind one morning when I heard the clashing of antlers. I hurried in the direction of battle as rapidly as possible, but was greatly retarded in my progress by fallen timber and tangled brush and although the affray must have kept up fully thirty minutes, I failed to reach the scene in time for the finish. I found the place where it had occurred, an open spot about fifty feet across, surrounded by an enormous growth of alders on all sides. It was just such a secluded spot as men might select for a duel. The earth was fearfully dug up by the hoofs of the moose and the surrounding alders broken down in many places, while great locks of long brownish gray hair, bestrewed the ground. Both animals had disappeared and although I was very near when the battle ended, I heard no cry of defeat; the unfortunate, like the brave spirit he must have been, suffered his mental and physical pains in silence.

Like all the deer family at this season of the year they are very curious as well as very reckless, and frequently pay for it with their life. Although retaining a certain amount of fear of man, yet their proud spirit so dislikes to acknowledge it at such a time that they will often stop in plain view of him to exchange glances at short range.

So great, too, is the bull's curiosity at this

*The moose does on occasion, when feeding in a lake or pond, go completely under the water and out of sight after an especially succulent lily root. This is disputed by some, but it is a fact, none the less.—Editor.

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season that he will seek out any unusual noise. Just here I want to correct a very general impression that the bull moose can be called by the use of the birch-bark horn, in the belief that he is approaching a female.* No bull was ever half so stupid; such a thing is entirely unreasonable. He is simply attracted by the unusual sound, and being exceedingly curious, endeavors to locate the meaning of this strange thing in his home. The pounding on a tree with a club by the Tahltan or Kaska Indians in northwest British Columbia (among the best moose hunters in America) or pounding the willows with a dry shoulder blade of the animal, by the Liard River Indians will serve exactly the same purpose; or almost any other unusual noise would bring the bull within the sound just as readily. There is no animal in the world whose sense of hearing is more acute, and no hunter with any knowledge of the moose will call it stupid; yet hunters tell how their guide brought up a bull by imitating the call of a cow. How many of these hunters ever heard the call of a cow moose to give them authority to decide how perfectly the birch-bark horn in the hands of their guide imitated the cow's call.†

The moose inherits faculties for reasoning the few simple things that ordinarily come to his life and along with many other animals is capable of detecting the slightest variation in sound. Not only do animals recognize the cry of their own kind, but the cry of an individual. To know animals requires something more than careless observation. One must study them long and earnestly, and when we do this we can find reasons for every thing they do. I want no better comparison than I can find in the seals. On the Pribilof Islands, during the seal breeding season, one hundred thousand puppies are congregated at one time and left by their mothers who go to sea in search of food, often being gone two and three days. The little fellows get very hungry during this absence and set up a constant cry. When a mother lands she goes about among the thousands hunting her own; thousands of little voices are constantly coming to her ears—to man they all sound alike, but the seal mother detects her own from the nine hundred and ninety-nine thousand other voices; yet some would have us believe that the bull moose is so stupid as not to know the difference between the call of his mate and the call of a birch-bark horn. I could make innumerable comparisons along this same line, but am willing to allow the readers to draw their own conclusions. I simply assert that when a moose approaches such a horn he does so as he would almost any other strange noise, and he knows that he is not approaching a mate. Under the excitement of the moment he may do foolish things, but he is not a fool.

The long legs of the moose enable them to travel with ease through miry swamps, deep snow and among fallen timber. They do not drag their feet through the snow breaking trail as they go like cattle, but lift their feet above its surface every step, even though it may reach a depth of twenty-four to thirty inches. Several animals will walk one behind the other, stepping in the same tracks with such care as to leave the impression of but one animal having passed. They can step over logs of surprising hight. I have seen the snow piled upon logs to the hight of three feet above the ground, yet undisturbed by them in stepping over. They trot or run with a long swinging stride and rarely leap, and then never more than one or two jumps when suddenly frightened. They travel with great rapidity and ease; they can run through thick timber and brush scarcely creating a sound. Often the inexperienced hunter is very sure he has his moose in a certain thicket or brush, only to find, after a very careful approach, its bed in the leaves yet warm, and the animal perhaps two miles away. So acute is their sense of smell and hearing, and so careful, silent and mysterious their movements, that they not only detect the enemy under circumstances that would seem impossible, but they escape him without giving the slightest notice of departure, running through all sorts of tangles without so much as snapping a twig. If the moose is suddenly alarmed and recognizes itself observed by an enemy, it does not endeavor to conceal its movements. If in the brush or timber, it will make a bound and go crashing through, smashing everything on its road in the most wild and reckless manner; if in the open, it will give you one quick glance and move off in a long swinging and usually rapid trot, but never at its best speed so long as in

*Mr. Stone's opinion on this subject differs from that of many experienced hunters. There is evidence practically convincing that the bull is deceived into believing the horn call the call of the cow.—Editor.

†The cow's call is familiar to those who have had much calling experience in the Maine woods.—Editor.

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sight, for the moose is proud and dislikes the idea of expressing fear. Watch it carefully, just as it rounds the hill and realizes it is about passing out of your sight, it will suddenly stop and give you one very short look and then away with all the speed it possesses. Though proud the moose is full of fear, and feeling now it is out of your sight, loses no time in leaving you far behind.

The moose cannot be considered cowardly or timid, yet the instances are very rare where it has been known to attack man. Although a large and powerful animal it fears man and always avoids contact if possible. If cornered or seriously wounded, it will sometimes show fight—most animals will do this, but the hunter has been injured much oftener by the common Virginia deer than by the moose. Near Fort Norman on the Mackenzie a few years ago, a wounded bull charged and killed an Indian hunter who, in his effort to escape, was held by his clothing catching on a snag. Had the bull missed him in his first charge he would not have renewed it; few wild animals will return to a charge failing in the first.*

I stopped three days at a trading post on the upper Liard River in the fall of '97. The trader told me that he had a pet moose calf from the spring before. It was running loose in the forest and he told me it would often be gone for three days at a time. It was not at home when I reached the post, and he was very anxious for it to come that I might see it. The second day at noon, while we were eating dinner in the cabin, the door standing wide open, we heard the jingle of a bell and the trader said, "There comes Jennie." Sure enough she came as fast as her legs could bring her (and she was not riding a bad set of legs). She ran right in at the door, for she was accustomed to coming into the cabin. The moment she saw me, however, she looked at me very hard, her eyes grew larger, she sniffed the air, and she backed quietly out of the door. She objected to strangers. She would play with the trader, but would not let me get near her. I had a splendid opportunity of studying the movements of this animal, the way it carried its feet, legs and head, and many of its maneuvers, all of which were extremely interesting. Often when desiring to play it would stand on its hind legs and strike at its owner with its fore feet in a very reckless and vicious manner.

The young of the moose are dropped the latter part of May. The first calving rarely ever produces more than one, but adult females very frequently bring forth two and I have heard of triplets. I left the Liard River the 21st of May for the Nahanna Mountains, following up a small stream. On my way into the mountains I saw a great many tracks of moose, which my Indians assured me were those of females, but I did not see the track of a single calf. I was not hunting for moose, but was traveling through a splendid moose country and was given the opportunity of making some important observations. On May 26th I killed a cow and a calf; the calf could scarcely have been a week old.

I returned to the Liard by the same route I had gone on May 30th, and young calf tracks were numerous in the sands along the stream, and from numerous observations I have made I believe the majority of the calves are dropped between May 20th and June 20th. I have, however, discovered frequent irregularities in the breeding of many varieties of wild animals, and such irregularities, though not common, are found among the moose. While on the Kenai Peninsula in November, 1900, I ran across a young cow with a calf not more than eight weeks old. I spent ten days in trying to secure the pair, but failed, owing to the difficulty of travel in the deep snow, but we ran across their tracks every day during this time, and I saw them on several occasions. A calf always remains with the mother during its first winter, and sometimes longer. It is a very common sight to see a mother with her year-old and baby moose together. But when a mother is preparing for a new offspring she endeavors to forsake the company of her one-year-old, and she is usually successful. She will resort to methods that indicate her cunning and reasoning power. She will wander about in a valley near some stream and while her yearling is lying down, she will feed off alone to the stream and swim across, then run rapidly down the other side around a bend out of sight and again taking to the stream may swim down it for a mile or so and out again, keeping up this game until she is confident of having lost the yearling completely. After this, another move which is a very common one is to swim to some island in the stream, which she will travel all over for the purpose of

*adang of the Malay Peninsula is about the only one which having missed on his first charge, will variably return to the attack.—EDITOR.

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ascertaining if it is free from enemies. If she finds it to be, she will remain there until her calf is about two weeks old, when she will start with it to the mainland. The little fellow will have no difficulty in keeping afloat, but the rapid current nearly everywhere in the northern rivers would carry it down stream if left alone and the fond mother understands this and with the affection that a moose mother knows she gets below it, so that the calf swimming and resting against the mother's side is steered in safety to the mainland.

Moose are great swimmers and think nothing of crossing lakes and streams miles in width. Notwithstanding the strong tides of Kachemak Bay, Cook Inlet, a young bull, only two or three years ago, swam from a point near Yukon Island across Kachemak Bay to Homer Spit, a distance of over eight miles. I have traveled the same course in a light boat, with good oarsmen, going with the tide, and we were over two hours rowing it. Just how long the moose was in swimming it I did not learn, but I was assured by a man—entirely responsible—who was living on Homer Spit, and who saw the feat, that the animal was not all exhausted when he landed.

Possibilities of Extinction.—The moose will not soon become extinct. The advent of the prospector in Alaska, thousands of men scattered through its range armed with the best of rifles, is creating awful havoc in its numbers and very especially is this the case in the region of the Klondyke and Stewart Rivers. Sportsmen and professional hunters are combining to make its existence on the Kenai Peninsula intolerable. And in almost all parts of the North the sleuth-like Indian is on its trail equipped with modern rifle and plenty of ammunition. The moose is having a very different time from what it had a few years ago, but its wits, always alert, are being further trained, and its wonderful sense of smell and hearing help out of many a scrape. So keen are its perceptions of danger and so silently and rapidly can it leave all danger behind that the best trained hunter is repeatedly made to recognize his own stupidity when the wits of the two are brought into competition. Some of the many other circumstances favoring the moose are the splendid cover of their range, their failure to herd in large numbers like the caribou, their great strength and hardihood, the immensity of their territory, so far removed from contact with civilization, and the fact that while Indians are now much better equipped than in former years for moose destruction, their numbers are rapidly decreasing rather than increasing. Around the headwaters of the Stickine, Pelly, Liard and Nelson rivers in northwest British Columbia, is a country of vast extent shut in from all the rest of the world, a great untrodden wilderness. It is a favorite range of the moose. The Indians, one of its enemies, are dying; and no better proof of the inability of the wolf to cope with the moose under ordinary circumstances is necessary than that right in the very heart of this great moose range I have known wolves in awful hunger to prey upon their own numbers through inability to capture the moose.

Hunting.—To become a successful moose hunter is to reduce hunting to a science, and to undertake to describe the features involved and the methods of the hunt in detail would require a volume; moreover the art is one that can be acquired only by actual experience and all that could be written for the uninitiated would be of but slight service. To know how to hunt any animal is to know its habits and peculiarities. The habits of the moose are not so difficult to learn, but he lives so much in the thick brush that many of his little eccentricities are hard to understand and require much time and patience to master them. Very much depends upon the time of year in which one is hunting, as to the methods employed. September 15th to November 15th is the best season, but in countries where it is necessary to protect the animals they should not be hunted before the 15th of October. When the hunter pitches his camp right in the thick of a moose country he should select, if possible, some very secluded nook. He should avoid as much as possible, chopping, or making any kind of noise. He must live quietly, avoid unnecessary big campfires and leave the pipe in camp when setting out for the hunt. The scent of the pipe will travel much farther on the wind than the scent of the hunter. Decide upon the country to be hunted; ascertain the direction of the wind and make your detour so as to penetrate the hunting ground in the face of the wind. If the

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wind shifts, change the course of travel to suit, or work back and forth quartering to the wind. Be very careful in turning a point of the woods or in mounting the crest of a ridge. Eyes and ears should be alert; don't be in a hurry; the greatest precaution is always necessary. Keep a sharp lookout for footprints; if fortunate enough to find fresh ones ascertain the general direction in which the animal is feeding. If trace of the hoofs is lost, observe the croppings from the brush, the direction the grass or weeds are bent, the freshly overturned leaf and, better than all, estimate if the animal had passed this point since the wind was from the present point of the compass; if it has you can afford to take chances on its feeding and traveling with the wind. Note the contour of the country ahead and calculate upon the character of it as nearly as possible, and where the animal in its leisure would be most likely to wander; skirt this at a safe distance either to right or left as most favorable, keeping to the highest ground as affording an opportunity to overlook the route taken by the quarry. Never get in a hurry; never allow yourself to get in the wind of the animal. If now and then the locality favors doing so, climb a tree and carefully scan the country in every direction. Remember when it gets along towards ten o'clock the animal is very apt to lie down for a rest and will likely remain very nearly where it stops feeding until well into the afternoon. This is the time of day for the hunter to rest; all save his eyes, the eyes must never rest while moose hunting.

If in pursuing the moose in this manner the course of its path becomes uncertain the hunter may select some favorable point and approach at right angles for the purpose of determining whether or not he has passed the animal or if it has changed its course, but he must remember that when the time comes for the animal to rest it nearly always doubles back to the right or left of its trail a short distance. One very striking peculiarity in the animal's actions at such a time is that just before lying down it will run for a short distance, as if in play, stopping suddenly, as if acting under orders, when reaching the point upon which it desires to rest. Very especially is this little run apt to be indulged in if there are two or more animals together. It cost me two or three moose to learn this. I was once following three animals in deep snow. I was to the left of them and had traveled such a distance that I became anxious to locate their trail and I cautiously made my way to the right to intersect their course, if possible. I did not go more than three hundred yards until I came into their very fresh trail. I climbed a tree and scanned the country ahead, locating nothing more than the trail for some distance through the snow. I followed this for a short space and came to where the animals had been running, making great strides. I calculated that it was all up with me, but decided to follow their tracks around a point that I might get one more look in the direction they had gone, the perfectly natural instinct of a hunter—this was a fatal move—they had stopped short and were lying down just behind a bunch of spruce not three hundred yards from where they had left a walk. On my approach they said good-bye through this clump of pines which screened them from a rifle ball.

A breezy day is always best for moose hunting, as the bluster of the wind makes it unnecessary for the hunter to be absolutely noiseless. The same general principles may be applied in hunting moose in any part of their country—presuming that the hunter stalks his own game unsupported by guides or Indians. Few hunters who visit the Maine woods for moose, acquire knowledge of the hunt that would be very helpful to them, if thrown upon their own resources in trackless regions of great extent. There is no game field in America that so nearly affords the hunter a parlor moose hunt as the woods of Maine, but the man who simply enjoys camp life and is not especially desirous of becoming an expert hunter, will find greater pleasure in the game fields of Maine than in wilder and more isolated regions.

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NEWFOUNDLANDERS OF THE OUTPORTS

By Norman Duncan

IT had been a race against the peril of fog and the discomfort of a wet night all the way from Hooping Harbor. We escaped the scowl of the northeast, the gray, bitter wind and the sea it was fast fretting to a fury, when the boat rounded Canada Head and ran into the shelter of the bluffs at Englee—into the damp shadows somberly gathered there. When the punt was moored to the stage-head, the fog had thickened the dusk into deep night, and the rain had soaked us to the skin. There was a light, a warm, yellow light, shining from a window, up along shore and to the west. We stumbled over an erratic footpath, which the folk of the place call "the roaad"—feeling for direction, chancing the steps, splashing through pools of water, tripping over sharp rocks. The white-washed cottages of the village, set on the hills, were like the ghosts of houses. They started into sight, hung suspended in the night, vanished as we trudged on. The folk were all abed—all save Elisha Duckworthy, that pious giant, who had been late beating in from the fishing grounds off the Head. It was Elisha who opened the door to our knock, and sent a growling, bristling dog back to his place with a gentle word.

"Will you not—"

"Sure, sir," said Elisha, a smile spreading from his eyes to the very tip of his great beard, "'twould be a hard man an' a bad Christian that would turn strangers away. Come in, sir! 'Tis a full belly you'll have when you leaves the table, an' 'tis a warm bed you'll sleep in, this night."

After family prayers, in which we, the strangers he had taken in, were commended to the care and mercy of God in such simple, feeling phrases as proved the fine quality of this man's hospitality and touched our hearts in their innermost parts, Elisha invited us to sit by the kitchen fire with him "for a spell." While the dogs snored in chorus with a young kid and a pig by the roaring stove, and the chickens rustled and clucked in their coop under the bare spruce sofa which Elisha had made, and the wind flung the rain against the window panes, we three talked of weather and fish and toil and peril and death. It may be that a cruel coast and a sea quick to wrath engender a certain dread curiosity concerning the "taking off" in a man who fights day by day to survive the enmity of both. Elisha talked for a long time of death and heaven and hell. Then, solemnly, his voice fallen to a whisper, he told of his father, Skipper George, a man of weakling faith, who had been reduced to idiocy by wondering what came after death—by wondering, wondering, wondering, in sunlight and mist and night, off shore in the punt, laboring at the splitting table, at work on the flake, everywhere, wondering all the time where souls took their flight.

"'Twere wonderin' whether hell do be underground or not," said Elisha, "that turned un over at last. Sure, sir," with a sigh, "'twere doubt, you sees. 'Tis faith us must have."

Elisha stroked the nearest dog with a gentle hand—a mighty hand, toil-worn and misshapen, like the man himself.

"Do your besettin' sin get the best o' you, sir?" he said, looking up. It may be that he craved to hear a confession of failure that he might afterward sustain himself with the thought that no man is invulnerable. "Sure, we've all besettin' sins. When we do be snatched from the burnin' brands, b'y, a little spark burns on, an' on, an' on; an' he do be wonderful hard t' douse out. 'Tis like the eye us must pluck out by command o' the Lard. With some men 'tis a taste for baccy. With some 'tis a scarcity o' salt in the fish. With some 'tis too much water in the lobster cans. With some 'tis a cravin' for sweetness. With me 'tis warse nor all. Sure, sir," he went on, "I've knowed some men so fond, so wonderful fond, o' baccy that um smoked the shoes off their children's feet. 'Tis their besettin' sin, sir—'tis their besettin' sin. But 'tis not baccy that worries me. The taste fell away when I were took from sin. 'Tis not that. 'Tis warse. Sure, with me, sir," he said, brushing his hand over his forehead in a weary, despairing way, "'tis laughin'. 'Tis the sin of joakin'

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that puts my soul in danger o' bein' hove overboard into the burnin' lake. I were a wonderful joaker when I were a sinful man. 'Twas all I lived for—not t' praise God an' prepare my soul for death. When I gets up in the marnin', now, sir, I feels like joakin' like what I used t' do, particular if it do be a fine day. Ah, sir," with a long sigh, "'tis a great temptation, I tells you—'tis a wonderful temptation. But 'tis not set down in the Book that Jesus Christ smiled an' laughed, an' with the Lard's help I'll beat the devil yet. I'll beat un," he cried, as if inspired to some supreme struggle. "I'll beat un," he repeated, clinching his great hands. "I will!"

Elisha bade us good-night with a solemn face. A little smile—a poor, frightened little smile of tender feeling for us—flickered in his eyes for the space of a breath. But he snuffed it out relentlessly, expressed his triumph with a flash of his eye, and went away to bed. In the morning, when the sun called us up, he had come back from the early morning's fishing, and was singing a most doleful hymn of death and judgment over the splitting table in the stage. The sunlight was streaming into the room, and the motes were all dancing merrily in the beam. The breeze was rustling the leaves of a sickly bush under the window—coaxing them to hopeful whisperings. I fancied that the sea was all blue and rippling, and that the birds were flitting through the sunlight, chirping their sympathy with the smiling day. But Elisha, his brave heart steeled against the whole earth's frivolous mood, continued heroically to pour forth his dismal song.

The head of every house in the Newfoundland outports is the skipper thereof. Be it a gray, weather-beaten hovel, a turf hut or a clean white cottage with a porch and a bay window, he is the skipper. But Zachariah Lisson was a real skipper—not the skipper of a paddle punt or a trap skiff, but the skipper of a schooner, the fore-an'-after *Heavenly Rest*, which fished the Labrador seas and grinned tauntingly at a lee shore in every gale that blew. He was a sailor born, was Zachariah—born, in fact, aboard the *Prince o' Wales*, fifty years ago, when she was caught in the ice in the Straits. He had been bred to the sea from that hour—a [illegible]ky, brawny, tawny-haired, jolly dare-[illegible]f a seadog. Moreover he was sunk in wickedness. It was rum, when he could get it; and, as for rum—

"Nar a drap, is it?" he cried, when he boarded the *Zero* on her nor'ward trip.

"Neither drap, Skipper Zach," said the supercargo. "Nothin' but spirits o' turpentine aboard."

"If 'tis anything by the name o' spirits, b'y," said Zachariah, somewhat revived, "pass un over. 'Tis a wee drap I'll have—an' trust t' luck for gettin' clear of un."

The skipper was a Newf'un'lander. Neither wind, fog nor a loppy sea could turn his blood to water. He was a Newf'un'lander of the hardshell breed. So he sailed the *Heavenly Rest* without a chart. To be sure, he favored the day for getting along, but he ran through the night when he was crowding south, and blithely took his chance with islands of ice and rock alike. He had some faith in a "tell-tale," had Zachariah, but he scorned charts. It was his boast that if he could not carry the harbors and headlands and shallows of five hundred miles of hungry coast in his head he should give up the *Heavenly Rest* and sail a paddle punt for a living. It was well that he could—well for the ship and the crew and the folk at home. For, at the time of which I write, the *Rest*, too light in ballast to withstand a gusty breeze, was groping through the fog for harbor from a gale which threatened a swift descent. It was thick as bags, with a rising wind running in from the sea, and the surf breaking and hissing within hearing to leeward.

"We do be handy t' Hollow Harbor," said Zachariah.

"Is you sure, Skipper?" said the cook.

"Sure," said Zachariah.

The *Heavenly Rest* was in desperate case. She was running in—pursuing an unfaltering course for an unfamiliar, rocky shore. The warning of the surf sounded in every man's ears. It was imperative that her true position should soon be determined. The Skipper was perched far forward, peering through the fog for a sight of the coast.

"Sure, an' I hopes," said the man at the wheel, "that she woan't break her nose on a rock afore the ol' man sees un."

"Joe Betts P'int!" exclaimed the Skipper.

Dead ahead, and high in the air, a mass of rock loomed through the mist. The Skipper had recognized it in a flash. He ran aft and took the wheel. The *Heavenly Rest* sheered off and ran to sea.

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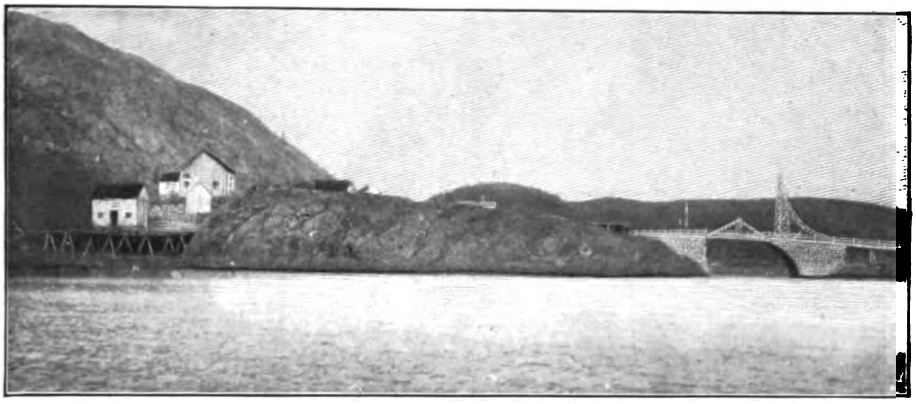

THE FISHERMAN'S HOME.

"We'll run in t' Hollow Harbor," said the Skipper.

"Has you ever been there?" said the man who had surrendered the wheel.

"Noa, b'y," said the Skipper, "but I'll get there, whatever."

The nose of the *Heavenly Rest* was turned shoreward. Sang the Skipper, humming it to himself in a rasping sing-song:

"When Joe Bett's P'int you is abreast,
Dane's Rock bears due west.
West-nor'west you must steer,
'Till Brimstone Head do appear.

"The tickle's narrow, not very wide;
The deepest water's on the starboard side
When in the harbor you is shot,
Four fathoms you has got."

The old song was chart enough for Skipper Zachariah. Three times the *Heavenly Rest* ran in and out. Then she sighted Dane's Rock, which bore due west, true enough. West-nor'west was the course she followed, running blindly through the fog and heeling to the wind. Brimstone Head appeared in due time; and in due time the rocks of the tickle—that narrow entrance to the harbor—appeared in vague, forbidding form to port and starboard. The schooner ran to the starboard for the deeper water. Into the harbor she shot; and there they dropped anchor, caring not at all whether the water was four or forty fathoms, for it was deep enough. Through the night the gale tickled the topmasts, but the ship rode smoothly at her anchors, and Skipper Zachariah's stentorian sleep was not disturbed by any sudden call to duty.

Twilight was filling the kitchen with strange shadows. We had disposed of Aunt Ruth's watered fish and soaked hard-bread with hunger for a relish. Uncle Simon's glance was mournfully intent upon the bare platter.

"But," said Aunt Ruth, with obstinate emphasis, "I knows they be. 'Tis not what we hears we believe, sir. Noa, 'tis not what we hears. 'Tis what we sees. An' I've seed un."

"'Tis true, sir," said Uncle Simon, looking up. "They be nar a doubt about it."

"But where," said I, "did she get her looking-glass?"

"They be many a trader wrecked on this coast, sir," said Uncle Simon.

"'Twere not a mermaid I seed," said Aunt Ruth. "'Twere a mer*man*."

"Sure," said Uncle Simon, mysteriously, "they do be in the sea the shape o' all that's on the land—shape for shape, sir. They be seahorses an' seacows an' seadogs. Why not the shape o' humans?"

"Well," said Aunt Ruth, "'twas when I were a little maid. An' 'twas in a gale o' wind. I goas down t' Billy Cove t' watch me fawther bring the punt in, an' I couldn't see un anywhere. So I thought he were drownded. 'Twere handy t' dark when I seed the merman rise from the water. He were big an' black—so black as the stove. I could see the eyes of un so plain as I can see yours. He were not good lookin'—noa, I'll say that much—he were not good lookin'. He waved his arms, an' beckoned an' beckoned an' beckoned. But, sure, sir, I wouldn't goa, for I were feared. "'Tis the

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THE OL' SKIPPER.

soul o' me father,' thinks I. 'Sure, the sea's cotched un.' So I runs hoame an' tells me mother; an' she says 'twere a merman. I *knows* they be mermans an' mermaids, 'cause I'se seed un. 'Tis what we sees we believes."

"'Tis said," said Uncle Simon, "that if you finds un on the rocks an' puts un in the water they gives you three wishes; an' all you has t' do is wish, an'—"

"'Tis said," said Aunt Ruth, with a prodigious frown across the table, "that the mermaids trick the fishermen t' the edge o' the sea an' steals un away. Uncle Simon Ride," she went on, severely, "if ever you—"

Uncle Simon looked sheepish. "Sure, woman," said he, the evidences of guilt plain on his face, "they be noa danger t' me. 'Twould take a clever mermaid t'—"

"Uncle Simon Ride," said Aunt Ruth, "nar another word. An' if you doan't put my spinnin' wheel t' rights this night I'll give you your tea in a mug * t'morrow—an' mind that, sir, mind that!"

After we had left the table Uncle Simon took me aside. "She do be a wonderful woman," said he, meaning Aunt Ruth. Then, earnestly, "She've noa cause t' be jealous o' the mermaids. Noa, sir—sure, noa."

It is difficult to convey an adequate con-
n of the utter barrenness of this coast
olding.

—of that jagged stretch of rock, between the sea and a trackless wilderness, upon which a people such as we have survived for generations. If you were to ask a fisherman of some remote outport what his flour was made of he would stare at you and be mute. "Wheat" would be a new, meaningless word to many a man of those places. It may be that the words of the Old Skipper of Burnt Harbor will help the reader to an understanding of the high value set upon the soil and all it produces.

"Come with me," said the Old Skipper, "an' I'll show you so fine a garden as ever you seed."

The garden was on an island two miles off the mainland. Like many another patch of ground it had to be cultivated from a distant place. It was an acre, or thereabouts, which had been "won from the wilderness" by the labor of several generations; and it was owned by eleven families. This was not a garden made by gathering soil and dumping it in a hollow, as most gardens are; it was a real "meadow."

"Look at them potatoes, sir," said the Skipper. He radiated pride in the soil's achievement as he waited for my outburst of congratulation.

The potatoes, owing to painstaking fertilization with small fish, had attained admirable size—in tops. But the hay!

"'Tis fine grass," said the Skipper. "Fine as ever you seed!"

It was thin, and nearer gray than yellow; and every stalk was weak in the knees. I do it more than justice when I write that it rose above my shoe tops.

"'Tis sizable hay," said the Skipper. "'Tis time I had un cut."

On the way back the Skipper caught sight of a skiff-load of hay, which old John Burns was sculling from Duck Island. He was careful to point it out as good evidence of the fertility of that part of the world. By-and-by we came to a whisp of hay which had fallen from the skiff. It was a mere handful floating on the quiet water.

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"The wastefulness of that dunderhead!" exclaimed the Skipper.

He took the boat toward the whisp of hay, puffing his wrath all the while.

"Pass the gaff, b'y," he said.

With the utmost care he hooked the whisp of hay—to the last straw—and drew it over the side.

"'Tis a sin," said he, "t' waste good hay like that."

Broad fields, hay and wheat and corn, all yellow, waving to the breeze—the sun flooding all—were far, far beyond this man's imagination. He did not know that in other lands the earth yields generously to the men who sow seed. How little did the harvest mean to him! The world is a world of rock and sea—of sea and naked rock. Soil is gathered in buckets. Gardens are made by hand. The return is precious in the sight of men.

Uncle Zeb Gale—Daddy Gale, who had long ago lost count of his grandchildren, they were so many—Ol' Zeb tottered up from the sea, gasping and coughing, but broadly smiling in the intervals. He had a great cod in one hand, and his old cloth cap was in the other. His head was bald, and his snowy beard covered his chest. Toil and the weight of years had bowed his back, spun a film over his eyes and cracked his voice. But neither toil nor age nor hunger nor cold had broken his cheery interest in all the things of life. Ol' Zeb smiled in a sweetly winning way. He stopped to pass a word with the stranger, who was far away from home, and therefore, no doubt, needed a heartening word or two.

"Fine even, zur," said he.

"'Tis that, Uncle Zeb. How have the fish been today?"

"Oh, they be a scattered fish off the Mull, zur. But 'tis oanly a scattered one. They doan't run in, zur, like what they used to when I were young, sure."

*Fifteen miles distant.

"How many years ago, sir?"

"'Tis many year, zur," said Uncle Zeb, smiling indulgence with my youth. "They was fish a-plenty when—when—when I were young. 'Tis not what it used t' be—noa, noa, zur; not at all. Sure, zur, I been goain' t' the grounds off the Mull since I were seven years old. Since I were seven! I be eighty-three now, zur. Seventy-six year, zur, I has fished out o' this here harbor."

Uncle Zeb stopped to wheeze a bit. He was out of breath with this long speech. And when he had wheezed a bit, a spasm of hard coughing took him. He was on the verge of the last stage of consumption, was Uncle Zeb.

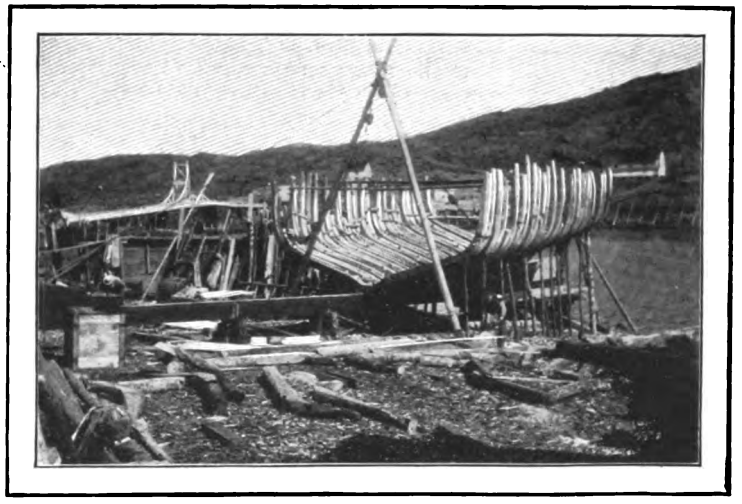
"'Tis a fine harbor t' fish from, zur," he gasped. "They be none better. Leastways, so they tells me—them that's cruised about a deal. Sure, I've never seen another. 'Tis t' Conch* I've wanted t' goa since I were a young feller. I'll see un yet, zur—sure, an' I will."

"You are eighty-three?" said I.

"I be the oldest man t' the Harbor, zur. I marries the maids an' the young fellers when they's noa parson about."

"You have fished out of this harbor for seventy-six years?" said I, in vain trying to comprehend the deprivation and dull toil of that long life—trying to account for the childlike smile which had continued to the end of it.

"Iss, zur," said Uncle Zeb. "But, sure, they be plenty o' time t' see Conch yet. Me fawther were ninety when he died. I be oanly eighty-three."



BUILDING THE SCHOONER.

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Uncle Zeb tottered up the hill. Soon the dusk swallowed his old hulk. I never saw him again.

We were seated on the Head, high above the sea, watching the fleet of punts come from the Mad Mull grounds and from the nets along shore, for it was evening. Jack had told me much of the lore of lobster-catching and squid-jigging. Of winds and tides and long breakers he had given me solemn warnings—and especially of that little valley down which the gusts came, no man knew from where. He had imparted certain secrets concerning the whereabouts of gulls' nests and juniper-berry patches, for I had won his confidence. I had been informed that Uncle Tom Bull's punt was in hourly danger of turning over because her spread of canvas was "scandalous" great, that Bill Bludgell kept the "surliest dog t' the Harbor," that the "goaats was wonderful hard t' find" in the fog, that a brass bracelet would cure salt-water sores on the wrists, that—I cannot recall it all. He had "mocked" a goat, a squid, a lamb, old George Walker at prayer, and "Uncle" Ruth berating "Aunt" Simon for leaving the splitting table unclean.

Then he sang this song, in a thin, sweet [illegible], which was good to hear:

"'Way down on Pigeon Pond Island,
When daddy comes home from swilin',*
(Maggoty fish hung up in the air,
Fried in maggoty butter)!
Cakes and tea for breakfast,
Pork and duff for dinner,
Cakes and tea for supper,
When daddy comes home from swilin'."

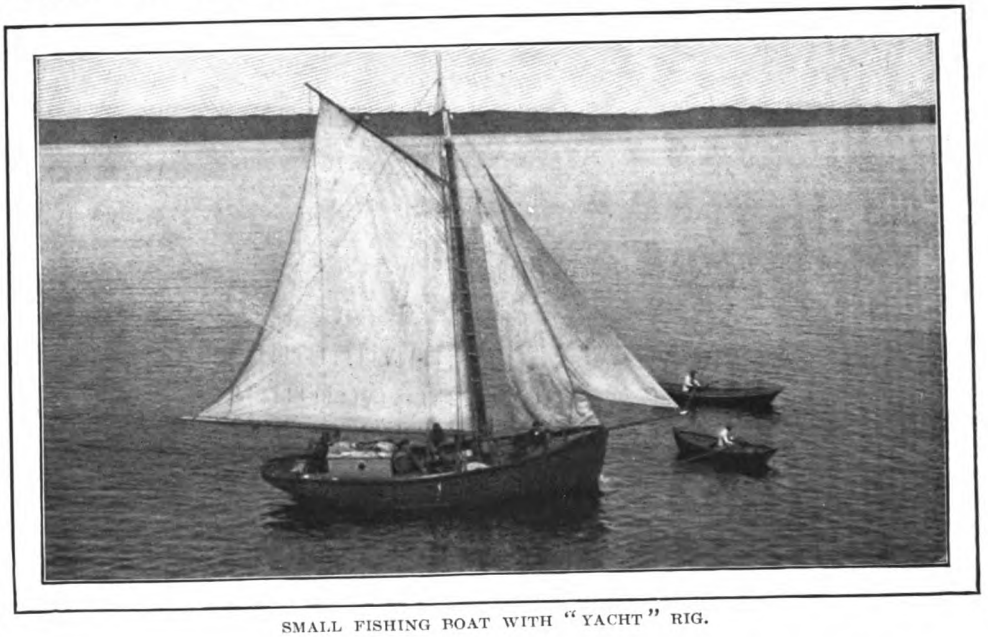
He asked me riddles, thence he passed to other questions, for he was a boy who wondered, and wondered, what lay beyond those places which he could see from the highest hill. I described a street and a pavement, told him that the earth was round, defined a team of horses, corrected his impression that a church organ was played with the mouth, and denied the report that the flakes and stages of New York were the largest in the world. The boys of the outports do not play games—there is no time, and at any rate, the old West Country games have not come down to this generation with the dialect, so I told him how to play tag, hide-and go-seek and blind-man's buff, and proved to him that they might be interesting, though I had to admit that they might not be profitable in certain cases.

"Some men," said I, at last, "have never seen the sea."

He looked at me and laughed his unbel[illegible]

"Sure," said he, "not a hundred haven'[illegible]

"Many more than that."



SMALL FISHING BOAT WITH "YACHT" RIG.

[illegible]ling.

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"'Tis hard t' believe, zur," he said. "Terrible hard."

We were silent while he thought it over.

"What's the last harbor in the world?" he asked.

I hesitated.

"The very last, zur! They do say 'tis St. Johns. But, sure, zur, they must be something beyond. What do it be?" After a silence, he continued, speaking wistfully, "What's the last harbor in all the whole world, zur? Doesn't you know?"

AN OUTPORT DRY-DOCK.

The hills overhang Little Harbor and the sea grimly confronts it. It was settled from Greater Harbor when the crowd of souls there—five hundred all told—became too great for some men longer to bear with. The thirty cottages grip the rocks for dear life. All the folk are fisher folk. They are far remote from their kind. There are no roads on the northeast coast. All the world's a waste.

When we stepped ashore, an old fisherman with seven children tagging after him came down to meet us.

"Good even, zur."

"Good evening."

"Be you a doctor?"

"No, sir."

"Noa? Isn't you? Now, I thought maybe you might be." Disappointment first showed in his voice when he said, "But you isn't, you says."

"Sorry—but, no."

"Sure, I thought you might be a doctor. They be great need of a doctor on this coast, zur. Sure, the nearest do be at Tilt Cove an' 'tis sixty miles away. We do be too poor t' send for un. But you isn't a doctor, you says? Is you sure, zur?"

He looked at me—wistfully, half doubtingly. He waited for me to answer.

"I thought you might be," he went on. "Perhaps you might know something about doctorin'. Noa?"

"Nothing."

"I thought, now, that you might. 'Tis my little girl what's sick. Sure, none of us knows what do be the matter with she. Woan't you come up an' see she, zur? Perhaps you might do something—though—you isn't—a doctor."

THE LOCAL OX-CART.

The little girl was

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lying on the floor—on a ragged quilt, in a corner. She was covered to her chin, and the covering quivered now and again, as though she were shaken with cold. She was a fair child—a little girl of seven. Her eyes were deep blue, wide and fringed with long, heavy lashes. Her hair was flaxen, abundant and all curly and tangled. She was so winsome and lovely!

FISHING PUNT.

"I thinks she do be goain' t' die soon," said the mother. "'Tis queer. She do be all swelled up in the legs. Sure, she can't stand. We been waitin' for a doctor t' come, an' we thought perhaps you was one."

"How long have you waited?"

"'Twas in April she was took. She've been lyin' there ever since. 'Tis near August now, I'm thinkin'. We've been waitin'—sort of expectin' a doctor would come. They was one here 'bout two year ago."

"Think they'll be one comin' soon?" said the man.

I took the little girl's hand. It was dry and hot. She looked in my face—but I could not interpret. She did not smile—nor did she fear me. Her fingers closed over mine. I do not know what she meant by that tight clasp She was a beautiful child a blue-eyed, winsome little thing; but pain had driven all the sweet roguery out of her face.

"Does you think she'll die, zur?" asked the woman, anxiously.

I did not know.

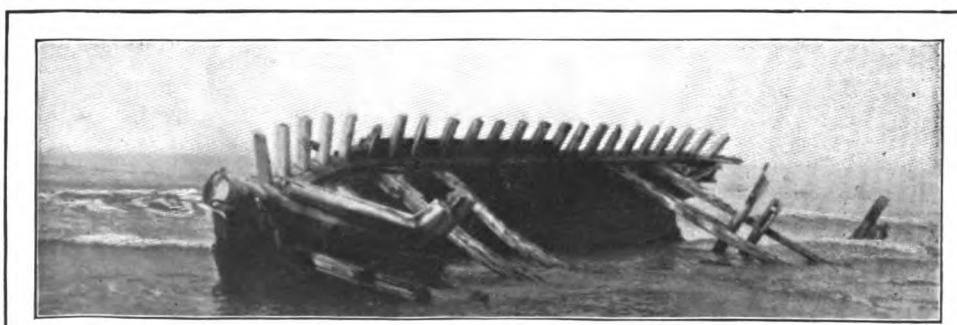
"Sure, zur," said the man, trying to smile. "I thought you might be a doctor when—I seed you—comin' ashoare."

"But you isn't?" said the woman. "Is you sure you couldn't do anything? Be you noa kind of a doctor at all. We doan't—we doan't—want she t' die."

In the silence—so long and deep a silence—melancholy shadows crept in from the desolation without.

"I wish you was a doctor," said the man. "I—wish—you—was."

He was crying.



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A STUDY OF THE BLACK VULTURE

By Gene Stratton-Porter

THE vulture family is older than the records of history. Their likenesses are found cut in the most ancient carvings, and in sign and symbol writing before the time of letters. The Greek, Herodotus, commonly referred to as the father of history, relates that vultures were so highly prized by the ancients that he found laws in every known country which he visited preparatory to writing his great work, inflicting the death penalty on any one destroying them. In Egypt they were made so especially an object of kingly solicitation, that they walked the streets of the cities and mingled with the flocks and fowls of the tent dwellers, as commonly as any domestic bird. The Mussulmen were so pleased by the vultures every year following the pilgrims on their journey to Mecca, that they worshipped them and provided large sums of money to be spent for provender to be thrown them along the way, oblivious to the fact that it was this food, and not instinctive devotion to the cause of Islam that accounted for their journey. In our day the extreme penalty no longer exists, but they are almost universally protected. The consideration shown them from the beginning of time is undoubtedly due to their work as scavengers, which is especially valuable in tropical climates. The most ignorant little "cracker," born and bred on the verge of a Georgia swamp, will assure you with bulging eyes that "You dassent kill nor hurt a John Crow 'cos they keep you from gittin' sick."

The old world has six genera and the new five. There is a structural difference in the vultures of the two continents, but their characteristics and habits are almost identical. Of the five species in our own country the three best known are the Great California vulture, having a body four feet long and a ten-foot spread of wing; the red-headed vulture or turkey buzzard, about the size and greatly resembling our wild turkey, for which it is named, and the black vulture, which is the original of these studies. *Catharista atrata* is the classic name, and it certainly embraces the finest specimens of the vulture family. A bird of this species is about the size of a common chicken and has a sweep of wing several inches longer than the tail, which is generous, plumage a brilliant black with iridescent shades of brown, green and blue showing in the light. Its head is bare of feathers, black and of a leathery appearance. There is a ruff of delicate gray and brown feathers, so fine as to resemble wool, about the throat where the heavy plumage begins. The beak is elongated, hooked at the point and almost as hard as steel for tearing through flesh, tough skin and muscles. The nostrils are oblong, quite large and pierced through. The eyes of grown specimens are full, round, dark, and undoubtedly able to penetrate as great distances as any other bird.

It has long been a perplexing question and one around which discussion has waged for generations, as to whether vultures discovered their food by sight or scent. They discover it both ways, but undoubtedly at greatest distances by sight. This question which engaged the greatest scientists from the beginning of the study of ornithology, was made to look a very simple matter by Canon Tristam, in whose writings can be found the following: "The Griffon who first descries his quarry descends from his elevation at once. Another sweeping the horizon at still greater distance observes his neighbor's movements and follows his course. A third, still further removed, follows the flight of the second; he is traced by another; and so a perpetual succession is kept up so long as a morsel of flesh is left over which to consort." This undoubtedly explains the extraordinary length of vision with which a number of birds of prey are credited.

Young vultures have white feet which grow darker with age, and in grown specimens are quite black. They have three toes front and one back and the nails are long, black and hard. The legs are bared and scaled to the first joint. Vultures are birds of the air and hights and their feet little used for walking, but the whole conformation of the foot and leg, even in very

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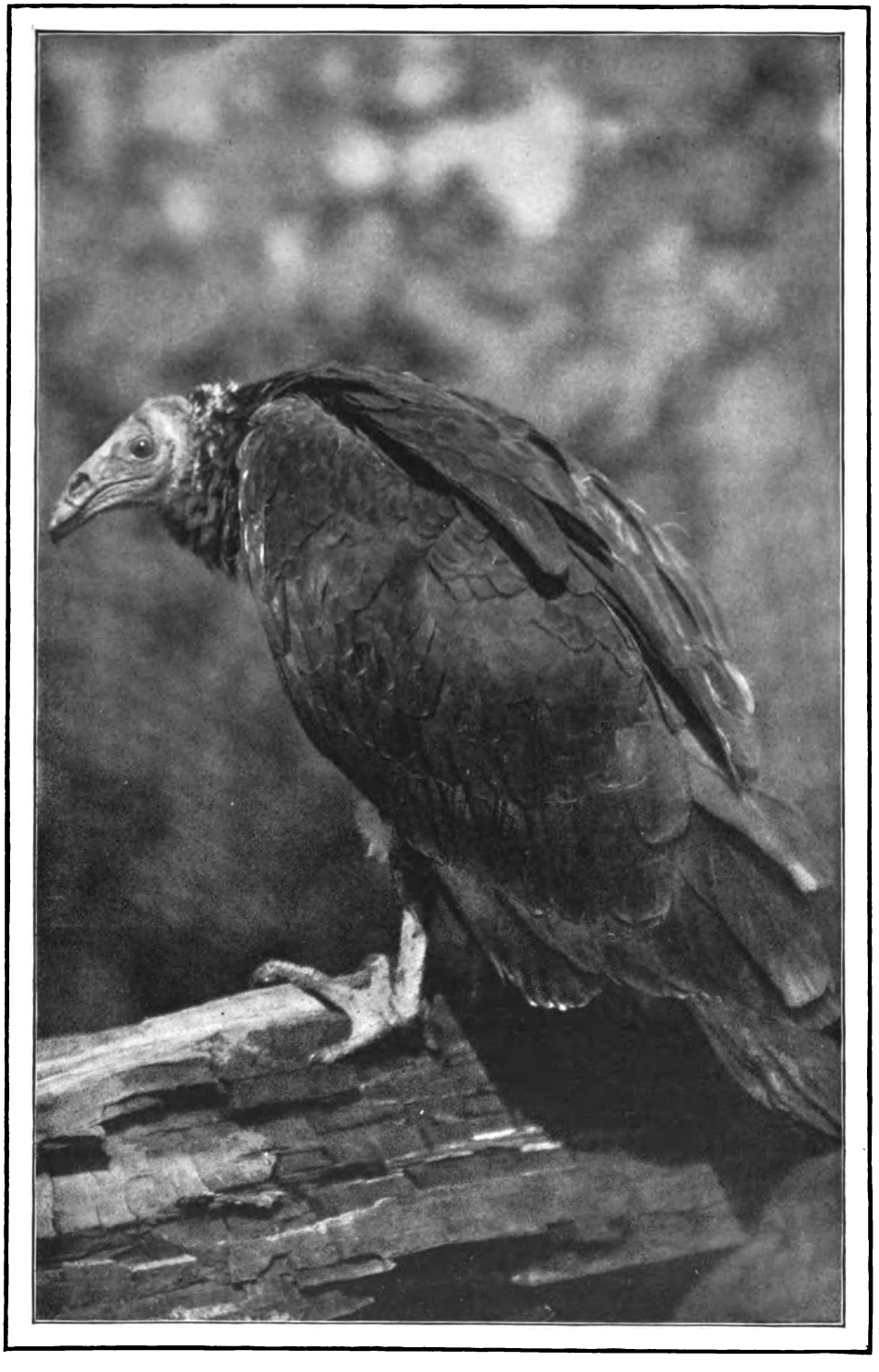

ABLE TO SPREAD SIX FEET OF WING
AND SAIL AWAY—TEN WEEKS OLD.

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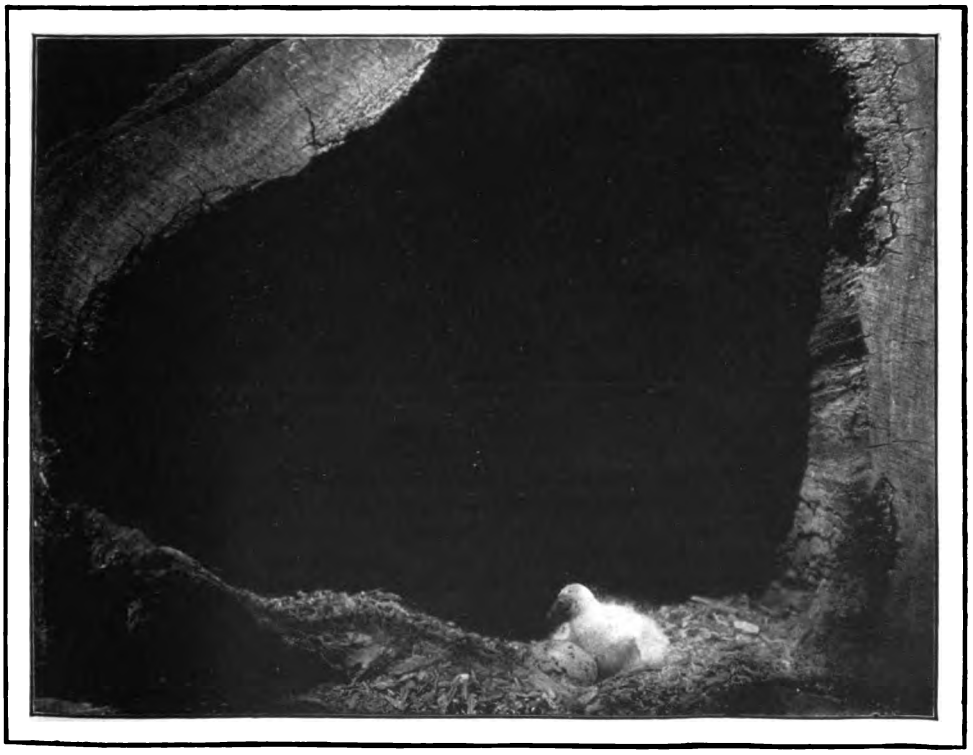
young specimens, gives the impression of great strength. This development is due to the use of the feet in holding and tearing up food rather than pedestrianism. When they do walk, they glide over the ground in their own peculiar way, still much more gracefully than any of their relatives, and with far greater speed.

The gastronomic inclinations of the whole vulture family are so well known as to require no discussion. In fact such prominence has been given to this subject that many very interesting characteristics and habits of the birds have been overlooked by the natural history student and photographer under the impression that calamity might follow a whiff of their odor.

In nesting they follow no fixed inclination, but build on the ground, in hollow stumps, prostrate hollow logs and rarely in rotted-out places in trees at some hight. In cases that have come under my immediate observation vultures nest nearer earth and buzzards choose higher locations. Three seasons a pair of buzzards nested at a hight of thirty feet, in a giant sycamore on the banks of the Wabash River, and were brooding on their dirty white eggs in the same location for the fourth time, when a June freshet turned their sweet home into the river.

The bird of these studies pipped its shell in a swamp extending through two counties in central Indiana, almost as thick and "beary" as anything in northern Michigan or southern Canada. The log in which it was hatched was a prostrate elm, hollow to the merest shell for thirty feet, five feet in diameter and near one hundred in length. Lumbermen that felled it, only the previous season, probably saw a vision of hundreds of feet of lumber vanish in thin air as it crashed to earth, but the vultures found in it an ideal location for their happy home. It had been cut over three-fourths of the way through and fell with the butt of the log resting on the end of the stump which was three feet in hight.

No building was necessary. There was several inches of dry, woody fiber in the log and on this they nested. Their eggs are exquisitely beautiful. They are as large as a turkey's but shaped like a duck's,



THE NEST IN THE HOLLOW ELM TRUNK

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the delicate blue of cuckoos', and thickly splashed and mottled with broken squares, oblongs and dots of darkest chocolate.

The nest had been located for some time and the first study was made before the down of the baby was scarcely dry. Considering the repulsion with which his species are customarily regarded, it takes courage to say it, but I will leave it to the studies to prove if he really was not the dearest little fellow—white as any snowdrift; soft as the down of a swan; a comical leathery, black little face, with hooked beak and speckled azure egg, on a bed of fiber that ran the whole ochre gamut, from almost white, through tan, straw, yellow, orange to darkest brown, the darkness of the hollow for a background, the golden arch of the great log above, the subdued grays and browns of the park and the green of the swamp all about him, combined to delight the soul of a color-loving person. I was extremely anxious to make a study of the babies together, and went the second morning for that purpose, but I arrived too late. It could scarcely have been the

SHOWING HIS BEAK AND FEET—TWO WEEKS OLD

bleary, bright blue eyes, like those of a young crow in its fool days; such small wings that they looked like arms and little white feet with black nails.

I attempted the first study of him at the entrance to the log, and if there ever was a day when I prayed more fervently than on any other for color photography to come into actual, practical, everyday use it was on that occasion. The picture I focused on the ground glass was simply exquisite. The snowy, black-faced little vulture, nestling beside the big, darkly-

baby—I suppose provender was scarce that morning and the odor of the newly-hatched chick too much for the mother. Possibly she sacrificed the last born to save the first, at any rate there were only a few splashes of blood and bits of shell to tell the story, but the first born was feasted to repletion.

I had my first encounter with the mother bird that morning and was delighted to identify her as a genuine black vulture, as I had supposed my find up to that time to be a common buzzard. Black vultures,

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under the cognomen of John Crow, are common in the South, but they are quite rare so far north. They are in every way a finer species than the buzzard, and I was very pleased to have my prospective series of as fine clay as possible.

I made the very finest possible natural history study of that baby once a week, without a break in the series, from the day he pipped his shell until he was a great black bird, able to spread six feet of wing and sail away. At the first when studies of his head were wanted, he turned his back persistently; later, when it was desired to illustrate his leg and feet development, he slid from the log and gave such a spirited illustration of legs through the swamp, over logs and vines and into such snakey places that it took Spartan courage to capture him. Toward the last, when he saw the intention to make an especial point of his wings and tail he faced front like a soldier. His beak became so hard and sharp that he found no difficulty in cutting through heavy dogskin gauntlets, and it was advisable to provide him a bone to chew on while he was being posed. It also became necessary after he had been coaxed to the entrance by bribes of sweetbreads to slip in a background to prevent him taking his treat and darting to the small end of the log where he could not be followed.

The average of these downy, harmless looking studies cost miles of travel, and hours of work in stifling heat, where standing room was at a par among logs, poison vines and marsh, and myriads of flies and mosquitos attracted by the largeness of the odor. The only available way to secure a picture of him at all was to focus on a given spot and then with infinite patience coax him by bribes of calf kidney or sweetbreads into the position or pose desired. Toward the last he grew to know me and would come and take his treat from my hand. He was one of my most interesting subjects, and I am profoundly grateful for the valuable series of natural history studies I secured of him. No doubt I would undertake a similar series of any branch of his family, but I hope by all that is odoriferous I will never have the opportunity.

DID YOU SAY SWEETBREADS?—SEVEN WEEKS OLD.

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VICE IN HORSES AND ITS CORRECTION

By Frank M. Ware

WITHIN the limits of a magazine article this subject must be treated crudely, and readers are besought to realize and to allow for this drawback. Sentiment and affection must receive scant consideration, and practice roughly trample upon theory.

"WAR BRIDLE"—FIRST METHOD.

No healthy horse was ever born vicious; all possessed of this undesirable characteristic have been made so by mismanagement or abuse. Occasionally a colt may be found which will saucily try to frighten its caretaker, and once in a while an animal proves incorrigible. These last, however, are really insane in some respects, and not in normal condition at all. Vice, invariably, is the outcome of improper handling by the superior animal, man.

Broadly stated, one may accept as an axiom the saying, "There are two things of which you may be certain regarding every horse; one that he is a fool, and the other that he is a coward." In proportion, also, as an animal is a coward, so is he a bully, and an active experience with horses of all varieties for all purposes will serve to indorse thoroughly these statements. If anyone who handles horses will convince himself of these facts their proper and safe management will be greatly simplified, and he will be thoroughly prepared for many sudden and seemingly extraordinary vagaries upon their part. Of course, to those who really believe the fables of the "Arab and his steed," and who honestly think that "Jewel knows my voice and my touch on her mouth," or that "Honesty comes at my call from the pasture," these statements will sound like rank heresy; but if they have occasion to associate, more or less intimately, with any great variety of horses, they will surely find that they have labored under a most dangerous hallucination; which may some day be amply proven when Jewel deposits them in a ditch with the carriage spread over for warmth.

That a horse is a fool is proved by the fact that he allows himself to be used by man, and to submit to draw loads or carry weights. He does not acquiesce because he wishes or loves to do so, but because he is hoodwinked into thinking that he cannot help himself; while he betrays both traits by the fact that he fears nothing to which he is accustomed, and everything which is strange to him. Nature intended that this should be the case, and in the timidity which makes him a coward, and the foolishness which makes him timid, his chief means of self-preservation are provided.

A horse is also an animal of but one idea, which forms man's chief safeguard in training and using him. Why does an animal led from his burning stable rush back, if allowed? Because he is thoroughly frightened, and instinct tells him that in one place—his stall—he has been always safe and well cared for. Back he goes through flames and smoke to the haven of supposed safety, and there he will lie down and die with that one idea, that if safety is not there, it is nowhere; nor, unless blindfolded, can he be led from his sanctuary.

In handling horses, therefore, and in preventing accidents; in curing vice and awkward tricks, he who will bear these three facts carefully in mind will have his pathway made easy; and if in addition, he will be careful never to let a horse conquer him, and to, as far as possible (by

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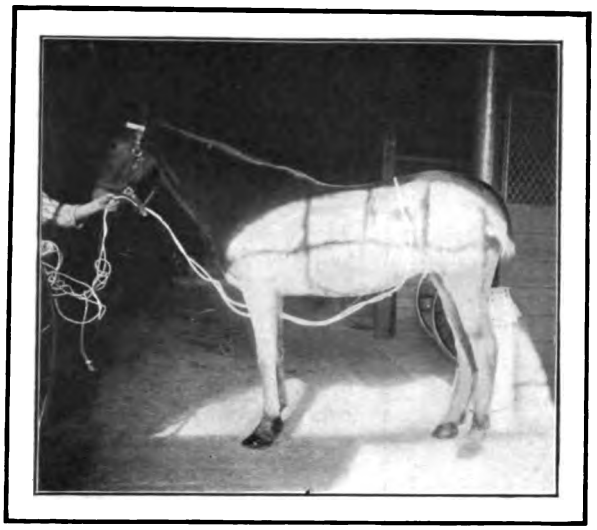


FOR HALTER BREAKERS.

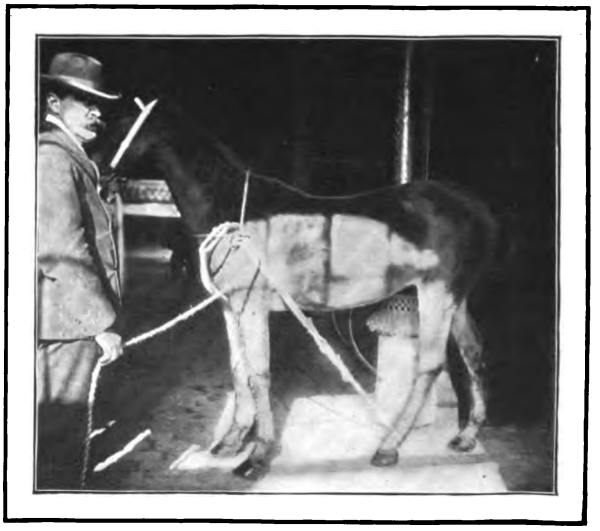
seeming to acquiesce in them) allow his subject to "break himself" of his faults, he will have no difficulty (given ordinary nerve and "horse sense") in correcting any habit or vice on the calendar.

There are many animals not worth the time and patience required to discipline them, but even with ample time at disposal, the summary methods now in use in the West, and which have been made more or less familiar everywhere through the exhibitions of various tamers or trainers, will, in modified form, serve an excellent purpose. These methods, by the way, first publicly exploited by such men, have long been in use, and have in them much good in principle, although of course, in these cases, elaborated and distorted for exhibition purposes; their principle consists in rendering the animal, from the outset, powerless to effectively resist; and impressing upon his one-idea mind the fact that it is useless to struggle.

Of course it is essential the trainer should realize that he must "make haste slowly," and be sure that his subject is impressed with the hallucination that he is powerless to disobey each demand made upon him. Nothing must be attempted which may result in failure, and each animal affords a new study and demands in little details a fresh style of campaign.

Horses do not recognize individuals nor do they understand words. Tones and gestures are of course intelligible, and when Jewel or Honesty halt at your order or come to your call, they will do the same for any individual who speaks with the same inflection or has the same appearance. In very rare cases the sense of smell has seemed sometimes to assist in discriminating between owner and stranger, but only in slight degree. A horse that has always been taught that "clk" means stop, and "whoa!" means go on, will act upon this interpretation; while as for "whoa" meaning stop (necessarily) to the trained equine, you can use any other word as well, provided the tone be that to which he is accustomed; and Honesty hurries from the pasture as quickly at the call of go away as of come here.

Between man and horse there can be no partnership (theorists and novelists to the contrary). Somebody must be master, and here comes in the bully in the animal's make-up. He will "size you up" in a moment. The hack that walks sedately off with A will put B flat on his back; the beast that goes quietly past steam drill and elevated road with C will try to climb trees in D's hands; yet instantly behave when he feels the reins again telegraph that



SIDE LINE.

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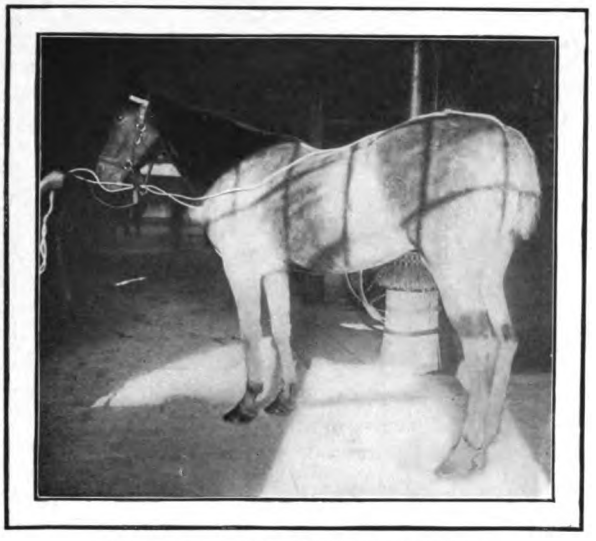

TO LEAD UNBROKEN HORSE OR COLT.

cool head and steady nerve are in control. The educated horses which perform in theater and circus are rarely long before the people, because they quickly learn that the dire punishment which instantly follows any fault at rehearsal, cannot be administered in public; and many a troupe has finally got completely out of hand for this reason; nor could the misbehavior be effectually corrected, because the cunning beasts were always letter perfect in private.

In handling horses but few words need be used and they should receive instant and implicit obedience. "Whoa," "clk," "back," etc., should mean just what they say. The man who goes "Whoa-a-a boy!" and "P-weep-p"-ing along, or is constantly talking to his horse, may fancy he is serving some good end, and that his animal really understands him, but the horse knows better; and an ideal trainer would be dumb, for words distract attention. One must have confidence himself, courage and nerve, or one is never safe with any horse. He takes the first signal of alarm from you. Here comes a steam roller—hideous sight! He pricks his ears, feels uneasy perhaps, but would probably pass (at a distance). Already he feels your hands tightening nervously on the reins. You are afraid of what he is going to do, but he thinks you are afraid of the hissing, rattling monstrosity. The one idea seizes him, "Man who has always proved my master is afraid, therefore, I am." All else is forgotten, terror compels fright, and forthwith you are a subject for repair shop or coroner according to your luck.

If the driver never telegraphs the horse by the reins that he is afraid and if he has never been disconcerted before by someone who was, he will march quite confidently past appalling spectacles and hideous sounds. A raw colt fears everything, a trolley car no more than a bit of passing paper. If the man treats both alike, so finally will the horse. In every accident seventy-five per cent. of the blame belongs to the driver or rider.

To correct vices and faults, some of course not worth the trouble of curing, and some too serious for the amateur to attempt, very few and very simple aids are required. Occasionally punishment—sharp and severe always—must be resorted to, but very rarely, and it is an excellent plan always to stop for a few moments until calm reflection convinces that correction is necessary and that temper does not urge. Give the dumb brute every chance to understand clearly, but if he still resists punish sharp and strong; it is the truest kindness.

The "war bridle," so called, is a most important adjunct to training or controlling any horse. This is a piece of cord a size larger than clothes line, and about ten feet long; make a hard knot in one end; another knot just far enough away to snugly encircle lower jaw; put knot (on end) through this slip knot and carry cord over head from off side down nigh side; under lip (and over teeth) of upper jaw; over head again and through jaw loop. Another method (used on runaways, etc.) is to put the loop (as named) around neck; double cord; run the loop (on off side) one part through mouth, and the other between the upper lip and upper teeth; bring slack back up off side, over ears, down near side; through loop in mouth and back to wagon. Both these are in popular use by all "educators," and are very severe when necessary. The "trip line" affixed to a front pastern or to both and thence running through a ring on shaft or girth to the trainer's hand is useful in some cases, but dangerous in

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that a horse may fall to his knees and badly cut and blemish them.

The "side line" is a most valuable adjunct in handling all colts; horses which will not stand when or until harnessed; and for other purposes readily suggested; can be readily applied to the wildest horse, and renders him quite helpless.

To use it, simply take a rather large rope with a loop in one end, large enough to encircle the horse's neck like a collar, and extra length to form a large running noose for him to step a hind foot in. Manœuver him so that he will do this, and immediately pull up the slack so that it encircles a hind pastern, and tie it in the neck loop in a slip-knot which a pull will release. The foot should be drawn forward and upward, and about six inches from the ground. A large rope will not cut or chafe the pastern, and at a pull the horse is free. Let him hobble about a few minutes on three legs until tired, and then you may handle him all over; mount and dismount if a buck jumper; teach him to stand when harnessed, or while being put to; and in short deceive him more thoroughly as to his utter helplessness by means of this contrivance than by any other. Any colt or horse can be trained in half the time by the aid of these simple and inexpensive appliances, and properly used there is no way an animal can get the better of them.

To start a baulker, change his one idea of standing still to something else. Try anything to accomplish this; change his bit; shift his harness about; put a piece of rope behind his two forelegs and saw it gently back and forth; push him to the right a step, then to the left and repeat; tie string around ear, etc., anything that will distract his attention, and change by its novelty the current of his thought. To cure him put a "war bridle" on him, and jerk him with it several times; never using a straight but always an alternate lateral pull, saying as you do so, "come here," (or "go away," if you like, the tone is the thing). When he follows quickly and closely (as he will surely) put him in harness, leaving on the "bridle;" if he stops go in front, with rope in hand, and if he does not come at your word, jerk him more severely than you have ever done, repeating the words always, and giving him plenty of time to think it over between whiles. Leave the "bridle" on for a few days, when being driven, as a reminder, and make him pull a good load each time before being unharnessed. If you live in the country and have room, take him and a two-wheel dirt cart out to the end of your place; load cart with stones, well forward; check him high; ask him to start; if he says "no," simply tie him to the fence and go away and leave him. In two hours ask him again and repeat at intervals but leave him all night if necessary. When he does start make him pull the cart to the stable, and then turn about and pull it away two hundred yards or so; then take him out at once, feed and make much of him.

If a horse throws himself, tie all his feet together, unharness and leave him there for four or five hours. If a horse rears in harness put him in a stout cart and run a cord from shaft to shaft under him at stifles. When he rears he punishes himself. Put kicking straps on as the cord may make him "lift" a little.

If a horse is a runaway, shoot him and don't bother. The coward and the fool part of him continue to render him liable to panic, and the one idea makes him go blindly on. No man ever cured one and the frenzy may seize him at any time.

A kicker can be cured in some cases,

COMBINATION CHECK AND KICKING STRAP.

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"KENTUCKY" KICKING-STRAP

but one who has been thoroughly frightened (and injured also) can never be depended upon. Too short a back strap or too narrow a saddle will make any horse kick, but this is easily guarded against. The "Kentucky" is the only kicking strap of real service. This is a strap or rope going from before the tug on the shaft of one side to the cross bar on the shafts at the other, and crossing half way between the croup and root of tail. No horse can kick in this. Another style is to continue the check rein to the croup where it divides, goes through a ring on backstrap and thence to the shaft on each side, so that when the animal kicks he jerks up his own head. A strap is also used in double harness, but it is of little value and the only safe method for pair-horse work is to place hobbles just below hocks connected by a strap running through a ring on the girth, loose enough to allow trotting freely but not kicking (or galloping). Lots of hard work and a strap will prevent this vice, but like running away nothing will absolutely cure it.

Horses which kick at night in stall are afraid of the dark, and to stop it simply leave a light in the stable. When an animal kicks at people in the stable keep him in a loose box, if possible, and "whip break" him to always face anyone approaching. To do this take a straight whip and cut him about the hind legs until he faces you—then instantly stop—and repeat until he will always whirl and face you the moment you enter. If he must be kept in a stall, tie him with one rope going through the manger ring, and another running straight back from the halter. Tie both to heel post of stall, and back him out by casting both off and hauling on the straight one, reversing process to return him to his place.

Keep a narrow, bottomless heavy leather muzzle on a biter, which hangs well below his lips. He can feed, as it will push up his cheeks, but he cannot successfully grab sideways before one can get hold of the head collar.

If a horse rears under saddle tie a rope on the top of a stout halter run it behind, get two or three men on it, go in front and make him rear, and have them pull him over backward. It may hurt him, but it will cure him. If too valuable to risk, a strong and short standing martingale and stout noseband, worn low, will keep him on all fours.

Horses generally shy because their vision is defective, and they should never be punished for it but every effort made to encourage them and create confidence; alarming objects should be passed at a distance, if possible, otherwise the attention may be distracted by shifting his bit, driving him well up to it, and puzzling him as to what you expect him to do—poor beast how often he must ponder over that! The treatment of pullers, luggers, etc., etc., depends so much on the requirements, characteristics and conformation of each subject that no rules can be laid down.

"WAR BRIDLE"—SECOND METHOD.

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They are all made, not born, and only experiments will show the successful method to employ. If a horse's teeth are right, his natural poise good, his neck not too thick and straight, or his jowls too narrow, and he pulls, then he has been taught to do so, and his education in that respect must be gradually overthrown by appropriate methods. It takes two to make a pulling match; if the driver does not the horse cannot and finally will not.

Buck jumping may be cured by using the side-line and always tiring the horse out before mounting; or one may "head-and-tail" him—*i. e.*, pull his head and neck far around and tie it to his tail—when with the whip he may be induced to circle until dizzy and sick. When mounting a suspect, take the left rein very short, mount quickly, and at once apply spurs and whip to whirl him until the kink goes out of both back and temper. If, however, he gets well started to buck and knows how, *get off*—any old way, but *get off*—and pass him on to someone else before the fool-killer gets you. For a halter breaker double a stout rope, place it round his body in a noose, just over the short ribs; run the ends forward between the forelegs, through the halter ring, and tie to the manger. When he sets back on this a few times he will stand tied with a thread. To lead an unbroken horse, or a bad leader, do the same thing; or pass it under the tail like a crupper and then forward. Even a cow will lead well thus equipped.

Other vices and tricks are occasionally met with, but nearly all may be combatted successfully by patience and common sense, bearing in mind the characteristics of the animal. Readers should not imagine that the writer is an advocate of roughness and abuse, for such is not the case, but they should thoroughly comprehend the natural and sharply-defined limitations of the horse, and understand that "man's noblest friend" is no more to be implicitly trusted than the average acquaintance; that his intelligence and generosity have their narrow boundaries; that an animal is anxious to please you in proportion as he realizes that you are his master; and that as you cannot overmatch him in physical strength, your safeguard is the subterfuge and deception which you would resent in him—the less noble animal.

THE WAY OF THE INDIAN CROSS.

By Edwyn Sandys

WHEN Dick Moore left college he was easily the most popular man of our good old crowd. And his popularity was richly deserved. Daring, reckless to a fault, the "protector of the Pitiful," he was the idol of the younger set, while his straightforward methods and unswerving gameness and loyalty commanded the admiration of three-fourths of his mates and at least the respect of staid, booky Seniors, who possessed souls above athletics and only microscopic fragments of strong human nature as it should be.

Needless to say Moore was an athlete—what college hero is not? A marvelously good all-round man, he devoted himself mostly to sprinting, sparring and shooting, and at these no man of his acquaintance could hold him.

He decided to follow engineering, so partly to add to his knowledge of road construction and mining and partly to gratify his adventurous bent, he went West, and I didn't see him for three years.

Meanwhile, I'd taken to soldiering. I had a fair berth in Toronto, and had no more idea of being called upon to do any fighting than I had of being Governor-General of His Majesty's Dominion. Then that French fool, Riel, got restless up North, and a lot of our fellows were hustled away to Winnipeg to quell the disturbance. There I had a trifle of spare time and I spent it mooning about the prairie town.

One day I saw a crowd in a side street and went over, expecting to see a fight. Instead, I found there was going to be a foot race for big money and that a lot of

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"Look here, Injun," he said, "Know me?".

A snarling curse in mongrel French responded.

"Watch me," he continued, and to the delight of the gang he stooped and kissed the girl's lips.

The Breed volleyed curses and strove to rise, but he was too rickety.

"Have a drink," Moore said, picking up the pail, "It'll do you good, you Indian dog!" and he very coolly emptied the pail on the Breed's head. Then with the girl, he passed inside, while the Breed picked himself up and went lurching away.

I went into the bar and learned that the girl was a niece of the proprietor. She tended the bar during his long sprees, and to do her justice she was pretty in a wild sort of way. She, too, had an Indian cross and Moore's rival had been devoted to her for a couple of years. The girl set up a round of drinks and seemed very proud of her new and daring lover. She could hardly take her eyes off him, and I knew enough of patois to catch several endearing remarks that passed between them.

When I got a chance, I tried to reason with Moore, but one might as well have tried to reason with a case of smallpox. He merely grinned when I tried to explain it wasn't good business to rob a Breed of his love, to punch him, to kiss the lady under his nose, and to combine injury and insult by pouring water upon the outraged one. "He'll get a knife into your ribs for this night's fun, unless you're mighty careful," was my parting shot.

"Let him, it's an even go," sneered Moore. Then I took myself off.

Winnipeg was then like a mushroom in the grass. One stride from the edge of the mushroom would place one's foot upon virgin prairie. Many streets were only streets so far as the new buildings extended —a yard beyond they lost themselves in the grass, like so many gophers.

I strolled on and on, smoking and turning over many things in my mind. I kept finding the ends of short streets and turning back to the first cross street only to bring up again at the edge of the unbroken prairie.

It was about two hours after the fight when I reached a point which I guessed to be the end of the street on which the row had occurred. A queer sort of twilight lingers for hours after sundown on the northern plains. It is a baffling sort of a light, in which you are apt to think you can see quite clearly, while in reality objects are distorted and distances not well defined. As I stood, my ear caught the sound of low, sweet singing, and the words—

"Farewell to the Red River Valley
And the half-breed who loved you so true."

Two voices, one rarely sweet, blended in the simple chorus, and then I heard a mocking laugh, which only Moore could have uttered. Guided by the sound, my eyes fell upon a darkish mass, which I decided must be our friend and his girl seated upon a log. Their voices told me that they were much nearer me than the light indicated. I had no intention of interrupting their spooning, so turned silently to go. As I turned my eye fell upon something else—a long dark streak hazily defined against the brown grass.

It might have been anything or nothing, but I fancied that I had seen it move slightly. It appeared to be about twenty yards from me and the same distance from the lovers. I stood and stared at it for, perhaps, two minutes. It did not change its shape, I could detect no unusual features about it, but to save me I could not help thinking that the long, dark streak was slowly, but surely gliding nearer to the lovers. Suddenly I distinctly saw a glimmer of light—just a glint at the forward end of the dark streak. A revolver barrel, or a knife blade turned over, might cause such a glint, and, yes—that dark mysterious streak might possibly be a man crawling upon his belly.

Moved by a sudden impulse, I exclaimed, "Look out, Abbey; look behind!" Then I dropped flat. As I dropped a report sounded, a spurt of flame leaped from the grass and the girl screamed. Another tongue of fire darted up, I heard an ugly oath, then four shots rang out so close together that I knew Moore was "fanning the hammer."

Somebody rushed away in the darkness. I could dimly make out a bounding figure, and the savage yell which came ringing back was unnecessary for the identification of the Breed. Another fainter yelp told that he was running for the river.

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Then a cool voice said—

"Come here, quick, he's hit the girl."

I found Moore holding her head upon his knee, and all he said was "You tipped me just in time, I'll square that some day."

His voice was as smooth and even as though nothing had happened.

I struck a match and asked "Where did she get it?" for I felt sure she was dead.

As the match flared full I saw a smear of red on her brown throat, and my hand shook so that the match fell. Before I could strike another, the girl gave a gasp, then muttered some patois. Moore had felt of her neck and he now declared that it was only a scratch. "A mighty close scratch," he added reflectively.

I was for having a good look at her, but Moore interfered—"See here, don't strike those blamed matches. That dog may be in range, and I don't want any candle-snuffing when I'm around the light."

To my intense relief, the girl presently stood up and declared that her hurt was nothing and that she'd go home.

"Can't kill 'em," whispered Moore, as we helped her to walk.

She gathered strength with every step, and before we had reached her home, she seemed to be all right. I spoke for a moment with Moore, and tried to persuade him to drop it, but it was no go.

"That's all right," he said, "I'm running this thing myself, though I'm obliged to you just the same."

"You'll get the worst of it yet," I urged.

"I don't give a rap if I do," he sneered. "That dog's piking out for his own people by now. He thinks he's done the girl and he'll never come back. But," he continued, and there was a ring in his voice which made me wince, "I'll get a bead on his speckle face some day. We'll meet West, and hell'll get the worst man!"

* * * * * *

Some time after, and away west of the "Peg," Moore rode into camp one day with despatches. He had been doing some grand work, and the boys in green were enthusiastic over the daredevil scout. The man who had floored one of Poundmaker's bucks with an honest punch, and then sprinted safe to cover; who had dashed into the open in full view of Breeds, Indians and troops, had seized a wounded redcoat and run for two hundred yards with his prize upon his back—this man was good to know!

When Moore got through at headquarters, he hunted me up, and we had a long confab. Of the Breed he had seen, or heard nothing, and the girl was all right by last accounts. He told me, modestly enough, of several of his experiences in the field, and I could not help admiring him as he lay stretched at ease, telling in a smooth soft voice of deeds worth ten years of any man's life to perform.

That night I was posted far out on the rolling plain. Moore was with me, by special order, for mischief was in the air and something was liable to happen in my direction. He chose the slope of a knoll, where the grass was very short, and he said, "Lie down, you can see better, without being seen."

For a long time we lay there, whispering occasionally, and keeping our eyes constantly roving over the dim gray waves of grass which seemed to spread like a sea for leagues around.

Moore had explained that there was a thin fringe of cover which extended from the river to within a hundred yards of our position. Once he crept away in that direction, and on returning half an hour later, reported everything quiet. After that we felt easier and chatted about the prospects. Among many things he told me that his Breed foe was with the gang and would be in the row next day, if a genuine fight resulted.

The boys will remember that day. The Breeds were in cover of houses and timber; they were hunters and knew how to shoot, and as the red and green bulldogs crawled from knoll to knoll, from tree to tree, many keen noses got the smell of powder, as Moore had predicted they would. And many a good fellow had got it deep before "those red haymakers," as Moore dubbed them, finally rushed down and won another laurel for the famous "Thin Red Line." Brown arms, hardened at pitching fat sheaves to the top of the load, can drive a bayonet home and fetch it back with a twist which leaves nothing more to be done.

During the thick of the skirmishing, three of us had crawled a bit ahead of the irregular line. Half-way down the slope, within a few yards of each other and in a line, stood three good-sized trees. Each man chose a tree, and a cheer from the boys behind

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greeted us as we reached the comparatively safe cover. Before us, and within hundred-yard range, stood several rough houses, from which the Breeds kept up a spirited fire. Two men were upon the further slant of a roof, and they kept popping their bare heads up, firing, and disappearing, before we could draw a fair bead on them. The swiftness of their movements and the way their lead sung about my ears, convinced me that these two were rare good shots.

I flattened tight to the ground, for it was worth a man's life to raise his head. When the bullets let up in their humming over me, I stole a glance, first at my left-hand man, then at my right. The left-hand man had already got it—he lay so flat that he didn't appear to be an inch thick—and I cursed the whole tribe of Breeds, for he wore the green of the Q. O. R. When I twisted about to see who lay on my right, I looked full into a laughing face, and heard a voice gurgle through the grass—

"Now ain't this a healthy climate?"

Had it not been for that awful thing lying 'tother side, I should have laughed outright, for the expression on Moore's face was too comical for words to describe. A second glance filled me with wonder at the sublime courage of the man, for he had clearly been jesting with Death for full twenty minutes. Six inches of bark had been shattered from his tree, and the white shreds of torn wood hung almost in his face. A tiny furrow had been ploughed in the ground beside him, and this, with the scarred tree-trunk, spoke eloquently of the stream of lead which had hissed past his uncertain shelter.

"Reckon they've gone for more shells," he sung out, "One's Gabe Dumont, or I'm a liar, and the other's our ——"

"Crack!" sounded a Winchester from the roof, and "whup—wee-o-o-o-oo-ee" sung a ball as it glanced from the tree and flew away to the rear. I flattened instinctively and for a moment all was silent.

"Close?" I queried, apprehensively.

"Touched my ear—all right!" he replied. Then for five minutes the men on the roof fired rapidly and we lay flat expecting every instant to feel one of the singing balls.

As I lay it seemed to me that fewer balls came my way, and I guessed the Breed had discovered who Moore was.

Again he spoke, and his voice had the old suggestion of mocking laughter.

"Say, old man, we've *got* to get those dogs off that roof—they'll cut my d—— tree down if we don't!"

I laughed in spite of myself. Then he called—"Watch my hat, and try for one of 'em!"

I wriggled into the best position I dared assume and lay ready. He pushed his hat almost clear of a root—crack-crack! rang out two reports, and a dark face with a big white mark popped eagerly above the roof. Out of the tail of one eye I saw the hat give a couple of erratic hops, then, quick as I ever did the trick in my life, I snapped at the white-marked face as it sank, rather slowly this time, behind the ridge of the roof.

"Bully!" roared Moore. "You got him plumb! He was a bit too careless that trip! Look out!" he almost shrieked.

For an instant, in my excitement, I had forgotten the second Breed, but as I flattened down a buzz of air in one ear told that he had not forgotten me. So near a shave was it, that for a moment I was certain that I had been hit.

When I looked again, I saw a Winchester lying upon the roof and an arm bent over the ridge as though some one were trying to recover the rifle without exposing his head.

"Drop that, you dog!" exclaimed Moore, as he let drive at the reaching arm, which promptly vanished in a puff of dust, while the rifle slid slowly down our side of the roof and fell to the ground. The next moment, before either of us could fire, two men, one supporting the other, slipped around the corner of the house and through an open doorway.

"Dumont, and our friend—he timed that well, blame him!" said Moore.

Meanwhile, from windows and chinks in several houses, a steady fire had been kept up, though none of the balls seemed to be hunting for us. The troops had crept closer and were blazing away in dead earnest, when a strange thing happened.

The door of our particular house slowly opened, and, to our surprise, a tall priest stepped into full view. He raised his hands, palms outward, and stood facing us for fully a minute while the firing at either side sputtered irresolutely and died away. Had that figure of peace been bestowing a farewell blessing upon a congregation it could not have assumed a less warlike or more impressive pose.

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A thrill of genuine admiration stirred me as I watched the steady hands and stately figure; for, though a priest, he was a man, and he had no guarantee that a dozen balls would not bore him through and through. But the dingy black robe never fluttered; he stood there, firm as a tree, as though he uttered the Master's message, "Peace, Be Still."

Presently he moved his hands, as if to indicate something more to come, then turned and passed into the house. In a moment he reappeared, carrying in each hand a large tin pail.

"Well, I'll be d——!" shouted Moore, "the old cuss expects us to let him carry water to those dogs inside. Maybe he wants to wash up our Breed—you plunked him fair in his white spot, for I saw the blood on his face. Guess I'd better go over and volunteer to do the ducking. But priest or no priest I'll plug him if he goes to the river!"

"Not on your life!" I called back, "but we might make his pails leak a bit."

I could hear Moore laugh, and I could also hear angry shouts from the skirmish line, for the boys were in no mood to allow any water to be taken to the stronghold of their foes. I expected some hot-headed youngster would cut loose, but, to the credit of the troops, not a rifle barked.

The priest placed the pails on the ground and again raised his hands and moved them as if to explain his purpose. "Take the pail on your side—ready—at the word —one—two—three!" said Moore.

We fired almost together, we heard the spat-spat of the balls, and the pails tumbled over and over. Through the smoke we saw the priest leap to one side, seize the rifle which had fallen from the roof, and gain the doorway in two flying bounds. Moore's rifle cracked and he yelled, "Sold! Gabe Dumont, by the Lord Harry!"

Then our fire broke loose again, while the reply from the houses appeared to slacken; then the final charge, and the Breeds ran like the wind from the cold steel.

Through the smoke I saw Moore dash past me, turn sharply, and go sprinting after a tall figure which was flying for some dense cover beside the river. Moore had left his rifle and, while he ran, I could ·im tugging at the revolver in his belt. ·ved him at my best speed, but I had ·se to run in the same class with those two flyers. They reached the cover, yards apart, with Moore still fumbling at his belt. Several minutes later, I found him casting to and fro in the cover, like a hound that had over-run a trail.

"He's slipped me, blast him!" he hissed, as I turned back to look for the trail.

"No need looking—no sign—he had moccasins on. If this confounded gun hadn't fouled the belt I'd have had him sure," he continued, as he moved towards the river.

"Breed, or Dumont?" I questioned, as we reached the one spot on a hundred yards of bank where we could get to the water without at the same time getting mired.

"Speckle face of course," he answered. "I've got nothing against Dumont, though I reckon I creased him when he fell through that door. And, mind you," he added, savagely, "I'll get this dog yet, I've not half lost him; he's within fifty yards of us this minute, and I'll get him sure as —aha!"

The sharpness of the exclamation caused me to whirl about. Moore was gliding over the narrow strip of sound footing, his gun was ready in his hand, and his eyes were fixed upon a great mat of short rushes and tangled water-weeds which spread for many yards before him. I at once saw that the weeds had been recently disturbed. A streak of tell-tale color extended to the center of the mat, and at the end of the streak was a rounded mass of wet green stuff, and—did my eyes deceive me?—a glint of scarlet.

Instantly there rose in my mind a vision of another streak darkly outlined against prairie grass, of a glint of steel, of two dimly discernible figures, while a whisper of song seemed to drone the words—

"Farewell to the Red River Valley
And the half-breed who loved you so true."

"For God's sake—don't *pot* him!" I cried, as Moore's arm straightened and the wicked-looking barrel pointed steadily at the round mass of weeds. I might have saved my breath.

The sharp bark was followed by a tremendous splash and swirl among the weeds, and I saw a brown hand rise from the water. The fingers closed, opened again, quivered with an awful, straining effort, then relaxed and the hand trembled downward till the slimy water closed over it.

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Fresh out of a fight as I was, the sight made me creep and I turned weakly away. Before I had gone two yards I heard another splash and turned back in time to see Moore disappear where the hand had been.

He soon reappeared and came half swimming, half wading to shore, dragging the body. He lugged it half-way out of the water, turned it over and said—

"Look at the mark—see where your bullet caught him!"

I looked and saw that half the man's cheek and most of the white mark had been shot away. Moore's bullet had struck slightly above the right ear. He was fumbling with his knife and I asked what for.

"I'll raise a lock of that hair for a keepsake," he explained.

"See here, Moore," I burst out, "You're a nervy man, and you might be man enough to leave Indian tricks alone. You've pretty near murdered this fellow as it is, and now you must scalp him! I'm disgusted with you."

He stared at me for a moment, whistled softly, then his face fairly shone with glee as he remarked:

"What a d—— fool you are, anyhow! Half an hour ago you were straining your Winchester trying to bore holes in this dog's face, while he was pumping lead within an inch of your life and of mine. Who tried to do me? Who drilled that boy on your left? A-ha! That bites, eh? Now shut your mouth and don't talk rot to me. The rat took to water and took the chances; I've got him, and I'm going to lift some hair—just a bunch, 'bout so big," he continued, insinuatingly, as he twisted his fingers around a goodly lock, "and a nice little wad of skin—only a pansy blossom—to hold my souvenir lock together."

When Moore had secured his keepsake, he tumbled the body back into the water and we tramped away to where tall columns of smoke told that the boys were burning the Breeds' cabins.

* * * * * *

After that red-hot day I saw little of Moore, until sometime after the rebellion had been stamped out and the last of the Indians had been disarmed and safely corralled on their reservations.

Like many of us he took a fancy to the Northwest, and decided to live upon the land given to him for services rendered. One night I was in Winnipeg and I happened to drop into the bar presided over by Moore's tan-colored beauty. To my surprise, and somewhat to my dissatisfaction, I found him there—the same old daredevil.

Of course he was glad to see me. After we had swapped experiences for at least two hours, he slipped his hand into his breast-pocket, drew forth a leather case, opened it, and remarked: "Here's something you'll recognize." He thrust something dark under my nose and I felt hair tickling my face.

"Bah! take it away," I said, for I knew right well what the thing was.

The girl stepped nearer to have a look, too, and he switched her face with the scalp-lock. She eyed it closely, and I fancied I detected a wicked gleam in her beady eyes. So long as he kept playing with the thing she kept her gaze riveted upon it. At last she stretched her hand toward it and asked him to let her have it.

He winked at me, as she moved nearer to the light. She stroked the long hair, passed it slowly between her fingers many times, then handed it back without a word of comment. He replaced it in its case and thrust the case into his pocket. I stole a look at the girl. Her eyes were glowing like coals, her face was almost white, and I was at once convinced that her woman's instinct had told her whose head had worn that hair.

* * * * * *

A few months later I read in the papers that the gallant ex-scout Moore had accidentally shot himself. His body had been found lying in the grass near his shack. Beside the body lay the dead man's gun with a loaded shell in one barrel and an empty case in the other; near the feet was a bunch of prairie-chickens. The charge of shot had torn a great hole in Moore's side, and his coat and shirt were blackened and charred, proving that the gun had almost touched him when the charge exploded. Clearly Moore had been chicken shooting, and in some way, perhaps by a stumble in the dark when reaching home, had shot himself.

The only inexplicable feature of the case was that a small bit of skin, no larger than a dime, had vanished from the crown of the head.

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FALCONRY IN FRANCE

By Vance Thompson

THERE is an old French saying: "The land is worth what the man on it is worth;" and in the same way you may figure out the value of a sport in terms of emotion—it is not what you kill, but the artistic and sportsmanlike satisfaction there is in the killing. You may have bowled over your wild boar and known the great joy of the hecatomb of pheasants, but your sporting life is incomplete until the falcon slipped from your own fist has made his kill in mid-air. It may be a heron rising from the marshes of the Perche; it may be a wild goose sailing south from the matrix of the north wind, but that one moment when the falcon, obedient to your will, swoops down on his feathered foe is the most exciting a sportsman can know this side of the Happy Hunting Ground of the *au-dela*.

FALCON ON BLOCK.

In no country in the world are there such opportunities for hawking—and especially for goshawking—as there are in America. The quarry is almost incalculable. Not only are there all kinds of birds to fly at —from the wild duck to the partridge and quail—but there are rabbits and hares, foxes and wolves, all fair game for the gamy hawk. And the beauty of it is that hawking, which is the most aristocratic of sports —a gilt relic of the chivalric days—is also uncommonly economical. It is, as Baudelaire said Heaven should be, cheap and entertaining. The hawks cost less to buy and keep than a good setter. And for a good day's sport no huge quarry is necessary. Four or five birds and a rabbit or two represent hours of exciting chase. Then for more strenuous moments you have but to lose your long-winged falcon on bustard or eagle.

Within ten years I believe falconry will be as common in the United States as the "ancient and royal game" of golf.

I foresee the day when the plowman's boy will trudge afield, his hooded hawk on his fist, while the richer sportsman will go out with horse and hound and hawk and lackey, with gold whistles and silver bells, as in the long ago. Already the sport has been revived in England with uncommon success. On the Continent it has never died out. The children of Gace de la Bigne have lost none of the cunning that distinguished them in the fourteenth century days of good King John. Indeed if anything, hawking has become a bolder and more accomplished sport, nor has it lost any of its feudal picturesqueness.

In describing falconry as it exists in France to-day, I shall emphasize the practical side of it, so that any one who wishes may, with patience and perseverance, be able to train and fly his own birds, and, if he will, go out with horse, hound and hawk together. Of course there is a knack in falconry as in every other art. It needs a light hand to hood a hawk without frightening him or arousing his rather sulky temper; nor is the mere tying and slipping of the jesses a simple matter. But the test of a good falconer is his ability to take the quarry away from the fierce victor after the kill. It requires more than a little deftness to substitute the lure for the prey. And yet there is no reason why falconry should not be self-taught. A little study and a good deal of common

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sense may take the place of professional instruction. And the amateur who begins by casting at larks may end by hawking for wolves. It's well worth trying for. Believe me, there is no joy—not the joy of the home-coming prodigal, nor the delight of the father who discovers that his youngster can keep up with the old family traditions of a gun and a horse—nothing quite compares to the subtle satisfaction of hawking a quarry out of the upper air. The bullet is a blind thing. Its killing is mere murder. But your hawk—I take it for granted you have bred him well—is a gentleman. He circles his prey and pauses, as one should say: "Choose your own position—*a vous l'honneur*!" and then the duel begins.

* * * * * *

"First, catch your hawk ——"

In France it is a simple matter to buy good birds. The snaring, nesting and training of hawks is a business there like any other. Of late, however, the best birds have come from the little village of Valkenswaard in North Brabant. The birds of prey used in this sport may be divided broadly into two classes, the long-winged hawk (*rameur*) for the high flight and the short-winged hawk (*voilier*) which is flown low at running game. The long-winged bird is your true falcon. He rises above his prey and then glides down upon him on a line more or less inclined. If he misses he takes his position once more and a duel thus begun may cover ten miles and last a morning. It is like the contest between two expert swordsmen; the passes and parades are formal and chivalrous, but fatal. The peregrine falcon is the true type of bird for aerial sport. The goshawk is the bird for the low flight. He is a plain and vulgar bird, but eminently useful. He can be cast at partridges or pheasants, though he is better at running game. When once the hare or rabbit is started into view he flies straight at it; in case he misses he wheels sulkily home to his master's fist and waits for another occasion. Yet he is a safe and steady bird and in England almost all hawking is goshawking.

The young birds should be taken in the spring when they are well feathered and just ready to leave the nest. The adult birds, or hagards, which are snared or limed in the autumn are more difficult to train and are not, as a rule, any more efficient. The male birds are lighter, smaller, swifter and more courageous; many falconers, however, prefer the female—especially for goshawking—as she is heavy, strong and obedient. When you have caught your falcon—be he peregrine or eaglet, goshawk or stone-falcon—his education should begin at once. For this a few utensils are necessary, not very many, not very complicated, but absolutely indispensable. First of all there are the jesses, little thongs of fine leather. One is knotted round each of the bird's tarses, just above the jointure of the claws. The loose ends of the jesses are gathered through a ring, so that the hawk may be close held and, as well, quickly loosed. In this matter the illustration speaks louder than words. Then there is the hood, the most important and characteristic adjunct of falconry. It is usually made of three pieces of dog-skin, sewn together, so that when slipped on the hawk's head it is light-proof. There is an opening for the beak, so that the hawk can feed even when hooded. The hood is really of as much importance in hawking as bit and bridle in racing; it is the beginning and ending of training. The bird of prey is at once fierce and timid; above all he is afraid of unusual sights. When he is in complete darkness, his pragmatic little brain seems to settle down into blank content. During the training process the hawk should never be moved unhooded even from one room to another. Only at night should he be unhooded. Then he should be fastened with a leash that affords room to move about on a block, in some lonely piece of lawn or field. For stormy nights he should have a perch, the thickness of a man's fist, set some three feet from the ground, in a quiet and dark apartment. But the hawk's true perch is the gloved fist of his master. His first lesson is to take the hood; the second to remain immobile on the fist, which his claws half surround—the master meanwhile holding the jesses with thumb and finger; the third is that of taking his food only on that gloved hand—it must be his universe. Now this may seem difficult, but any one who has handled birds—or even dogs knows that it is only a question of patience and gentle persistency. You place the hawk on your fist; he flutters away; very quietly you shorten

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ON THE GLOVE.

the jesses and bring him back; and that again and again and again until he learns his lesson. It is a matter of hours, and many hours a day. He should be touched as little as possible with the ungloved hand. You may express your approval by stroking his back with a feather. When he has learned to take his food—bits of raw meat or fowl—from the fist, his training is well on. Then he must be taught to eat from the lure. This lure or decoy is for the bird-hawk, a piece of wood covered with a pigeon's wings. For the goshawk it is covered with rabbit-skin. The meat is fastened to the lure and tossed here and there until the hawk has learned to pounce on it. By the time your bird has come to cast fifty yards or so, always coming back to th[illegible] may loose him with perfect co[illegible] s now got it into his dark lit[illegible] all this world there are o[illegible] at interest him—your g[illegible] lure. After that you t[illegible] instead of the decoy a[illegible] nished. Tie a little bell to his foot that you may know him afar and your work is done. Broadly this method may be applied to the education of any bird of prey, from the sparrow-hawk to that ideal hunter, the eagle. The trained falcon, it should be borne in mind is as different from his savage brother as the race-horse is from the wild mustang. When he is cast on a prey he expends all the force that is in him. His flight is a race, such as the wild hawk knows nothing of. It follows that he should be well fed and properly fed. Raw beef is the best diet. Once or twice a week it should be varied with raw mutton, veal, fowl or game of any sort. The hawk should be fed once a day at a fixed hour.

Though not unduly explicit, this account of hawk-training should suffice for him who wants to "begin falconer"—as our ancestors said.

An hour eastward from Paris—a stretch of farmland beyond a wooded upland—at the edge of the hill, a rambling one-storied house, with wide windows and doors—the falconry. On a perch under the poplars, a hooded goshawk brooded. Two others, a black-tipped *tiercelet* and the female of his peregrine kind, were on their blocks. In the doorway a falconer sat caressing a sulky brute of a bird with a feather. M. Montigny came to meet us, his famous hawk Attila on his wrist. In the blackness of his hood, Attila was motionless and dumb. Not a feather on his hood quivered; his silver beli did not jangle. He was hypnotized by darkness.

"The morning is clearing," said our host; "it is not bad hawking weather; I don't like too much sun."

The sky was a cold gray, with faint white clouds rolling in it; the wind was brisk and northerly.

"We'll set off at once," M. Montigny added; "one can't be too early for the partridges this weather. Are you ready, Jacques?"

Jacques was the falconer; a shrewd,

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dark little man of thirty. He slipped over his head the frame for carrying the falcons, adjusting it at his waist; it stuck out fore and aft like a ladder. On this he perched three birds — Attila, Xanthippe, and Nero. All three were peregrine falcons. The master whistled up an old setter. He was a rusty-coated sober dog; for a moment he inspected the hawks knowingly. When he recognized his old friend Attila, he barked a grim good-morning. On this signal we started. After ten minutes of white roadway we crossed a stubbled field toward a corner where the hedges met at a right angle. Beyond that was fresh ploughed land, broken here and there with young plantations of trees. The old setter was going forward in a business-like way. "We should start something near the hedge," said the master; "the partridges are crafty and tricky at this time of year. The dogs and guns have been out for six weeks now. They post their sentinels at quite a distance from the covey, but for hawking that is all the better. We'll take their outposts."

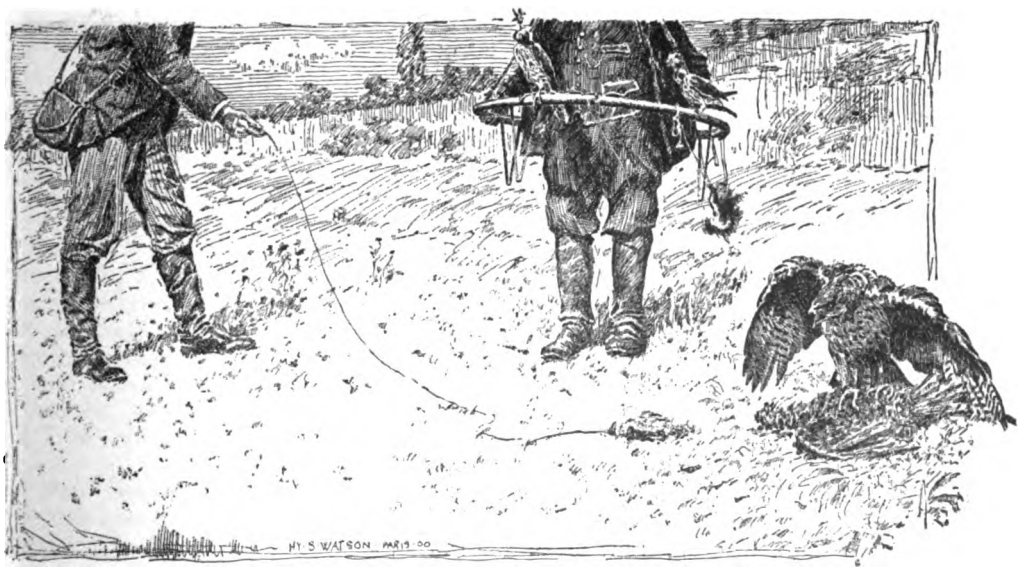
He had taken Attila on his fist. The bird was as motionless as the stuffed decoy pigeon that hung from the falconer's frame. Then everything happened very quickly. At the same instant the setter stopped quivering, and our host slipped Attila's hood—nor was that a simple process. The hood was fastened behind the head with two strings, bow-knotted. As the hawk was on the right fist, the master pulled one string with his left hand and the other with his teeth; in a second the hood was off and Attila sat blinking at the unusual daylight.

"*Allez, brigand, allez!*"

The dog went forward a step; there was a flutter and the partridge rose against the wind. His flight was direct, hurried, labored. As he rose—faithful sentinel that he was—he called his warning to the covey; it was a cry like the song of a blunt-toothed saw striking a nail, and not poetic; but Horatio at the bridge was no more heroic. He was still mounting against the wind when the master slipped the jesses and cast his hawk.

"The wind is so strong," he explained, "that the quarry will mount very high against the wind before turning to go with it. Now had I loosed Attila sooner than I did he would have taken the partridge at the moment when it turned on the wind. That would have been the end, for the partridge when he turns to fly with the wind rests for a second absolutely immobile and is a helpless prey."

And even so it was. The quarry turned in mid-air and made off down the wind before Attila had mounted to that hight. The turn of the hawk, however, was so quick the eye could hardly note it. He



THROWING THE LURE. ONLY THE MEN WHOM THE BIRD KNOWS AND TRUSTS, ARE ALLOWED NEAR.

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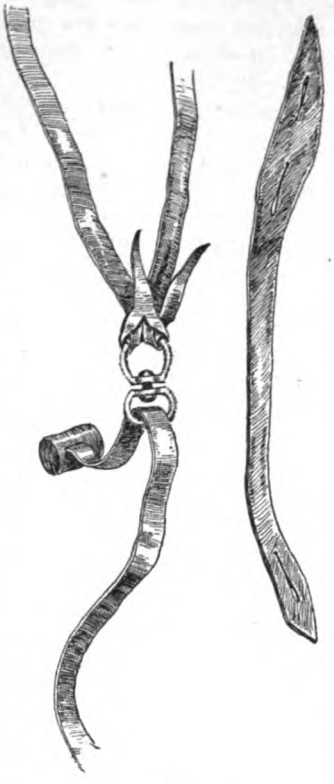
was high above the quarry now, a flying speck in that gray sky. Of a sudden he fell. The partridge, for all his awkwardness, was going straight and strong. He swerved just in time, and—"Well parried!" cried the master. Then it was a duel of flights and passades. The hawk lunged and the quarry parried. At last Attila rose high in the air; he was at his "pitch of pride," as Shakespeare would have said—at the "top of his career" in modern hawking slang. This time he came slanting down on the quarry. When he struck, it was all over. They came down together, hawk and quarry, on the ploughed land. Screaming and vicious, his wings widespread, Attila exulted over his prey. When the lure was thrown to him however, he came to take it and then to fist, like the well-trained hawk he is.

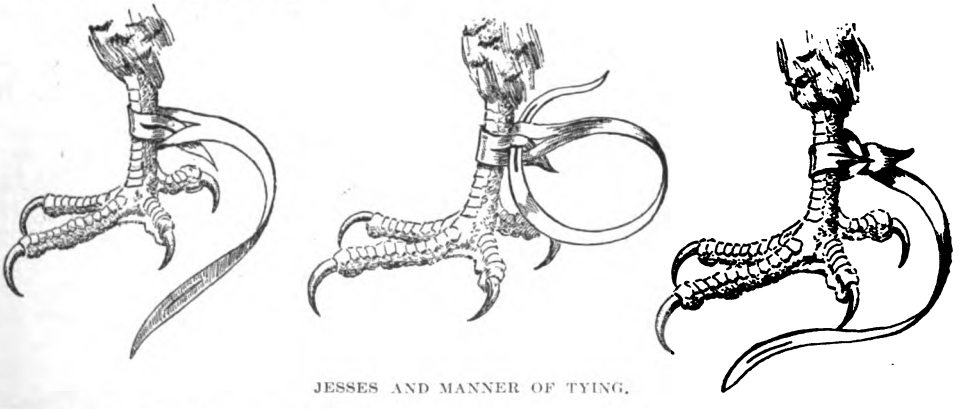


We turned back toward the hedge corner. Partridges are curious creatures; even after an alarm they never scatter far. It seems, too, that they are philosophical.

"Hello! One sentinel down," they say, "put up another!"

Of course had that sentinel been killed by a man with a gun, they would have scattered farther afield; but they look upon the hawk as something too natural to be feared. Life for them swings between the two poles of food-getting and foe-dodging. So they keep one eye on earth and the other eye aloft, and do the best they can. And that's tolerably good philosophy for man and bird.

Not ten yards from the first outpost we raised our second partridge. In the meantime I had equipped



JESSES AND MANNER OF TYING.

The partridge had been seized by the rump; he was not dead. I should like to conceal the manner of his death, but while I am a friend of the dark little falconer, I am a greater friend of truth. *Eh, bien*—the falconer picked up the quarry and cracked it [illegible] between his teeth. (Were [illegible] wife I should keep some [illegible] mises to kiss.) A pretty [illegible] of his breast and the [illegible] is throat—a true par- [illegible] feathers.

myself with hawk-gloves and wrist-protectors, and stood, not quite at ease, with Xanthippe on my fist. I had chosen her because I thought that I could handle that sex better than the other—an opinion like any other. When the quarry rose I bungled with the "rufter-hood"—it is no easy matter to untie bonnet-strings with your teeth—and it may be I was a bit rough in unhooding. In any case when I slipped the jesses, Xanthippe sailed gracefully up to a poplar tree and established herself on

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a branch, while the partridge went where the good Lord willed. The rusty dog looked at Xanthippe, looked at me, and lay down in disgust. The sulky she-brute wouldn't come down. We tossed the lure to her in vain. Finally we raised the lure on a long pole and Xanthippe condescended and descended. The master was put out. He hooded the lady and took her on his fist. She talked to herself in the darkness. Then he stroked and tickled her with a tail-feather of the dead partridge until she quieted down.

"Try Nero," he said.

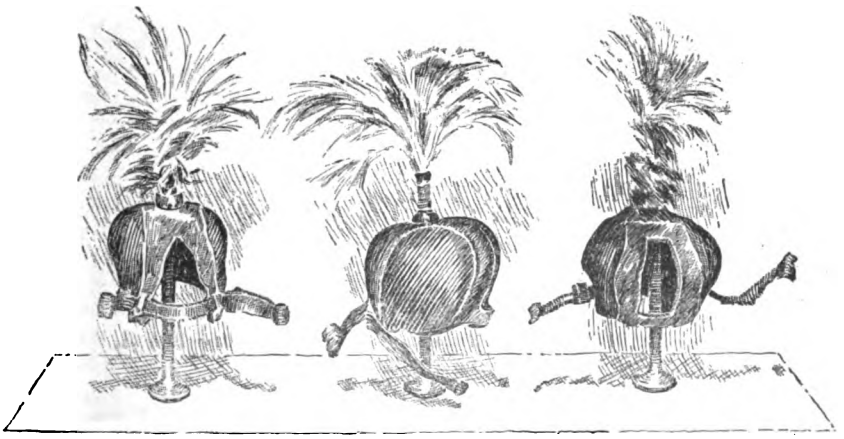
Nero is a *tiercelet*, beautifully marked—the black lines almost framing his round face—long-winged, with clean, featherless tarses. I did not intend to miss the third bird. When the partridge rose I slipped the falcon at once. He went straight up the wall of the wind—a wonderful flight, almost perpendicular—and gripped the quarry as it hung motionless on the turn. It was a kill in a minute, for when we reached them we found Nero gripping a dead bird. Like a well-bred gentleman hawk, he came to fist at once. It was an hour before we started another covey. Then we brought down three—two for Attila and one for Nero. Twice the master loosed Xanthippe. The first time she missed; the second time she refused. Always he carried her on his fist; always she scolded darkly in her hood.

"Evidently I ruffled her feathers and her temper," said I, and the master acquiesced. "In unhooding her you may have drawn too snappily on the strings," he explained, "and hurt her eyes a bit—but they are usually even-tempered, the females, although when they do sulk, they sulk like children."

As I have intimated, hawking does not frighten the game away. Birds, hares, rabbits, all look upon the hawk as a perfectly natural enemy and they themselves enter into the humor of the sport; they recognize that it is a fair sport and they fly and die, I am convinced, animated by the most chivalrous feeling. In the battle of the bird and the gun, the bird grows base—like the man in Meredith's poem—and loses, in the face of the inevitable, all his fine courage. What can you expect? You spit death at him from a far-off gun. In hawking he has a fair chance—he is fighting his natural foe—and all his craftiness and courage rise to the occasion. Hawking in preserved country merely makes the birds better and gamier.

On the homeward track we took another brace of partridges; but always Xanthippe sulked. Crossing a little stream, the Drouette, we came into an upland, where the master slipped Xanthippe at a partridge. At the same time the rusty dog started a hare. Now be it undersood that the falcon had been trained for the high flight, not the low. Yet within five minutes—ah, that was a mad race through which we stumbled—she brought down the squealing hare.

"And there's a woman for you," said the master, but I fear he still fancies that I was responsible for Xanthippe's bad behavior—as though one sex could ever be responsible for anything the other did.



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THE DOG POISONER

By J. P. Mowbray

I HAVE never seen a man who was born with an antipathy to dogs. That such men exist I have no doubt, and they are not to be judged harshly for an inheritance which they do not themselves understand and have never been strong enough to overcome.

But I have encountered in my time, and so has every lover of the canine race, the man who has acquired a sneaking detestation of dogs and who takes some kind of secret delight in poisoning them. It will not do to burden Nature with this fellow. He is as much an artificial product as a nihilist or a bulldog, and utterly lacks the bulldog's open honesty of antagonism.

It has been my misfortune to encounter this fellow on several occasions and I could hardly help making a study of him. I think I may say that in every case his actuating motive is envy or revenge.

It is true enough that there are dangerous dogs here and there in every community; dogs that have somehow been humanized for man's purposes into abnormal irritability, or driven into ferocity by the over-development of qualities that, left to themselves, were protective and conservative.

It is also true that there are here and there men who, if they do not take some kind of delight in keeping such dogs, at least show a strange indifference to the annoyance and danger of it. But these examples are so rare and the remedy is so obvious and so liberally provided by law that there is no excuse for the poisoner. Your true man, suffering from such a danger and finding expostulations in vain, gets a gun and in defense of his children, kills the dog, and stands up to his act with the open consciousness that the community is behind him.

The dog poisoner is another sort of man entirely. He is not apt to stand up to any- [illegible] the well being of the community [illegible] to his calculations except as [illegible] se he is detected. He does [illegible] the dangerous or disreput- [illegible] he dog that either by nature [illegible] ibits some kind of superi- [illegible] that excites his enmity. Under all his other qualities there resides the meanest of all human vices, an ignorant envy that, being ashamed of itself, must work stealthily and runs ultimately into a cheap and safe revenge.

You can see what kind of man this is. He does not know it but he is the anonymous letter writer, and has in him the potentiality of the man who slashes women's dresses and keeps vitriol in his disposition for an enemy's wife. Whatever awry appetency it is that lurks in this creature, it grows by its own brooding into a miscreant dislike for dogs that are gentlemen. The ignoble substratum of such a man's character is not instantly apparent to other men. He has a thousand smiling devices that cover it up. But what I wish to call attention to is that the dog detects it in spite of the man's craft.

Every intelligent and observant breeder of dogs has noticed this peculiar instinct of the animal in making human friendships. There are certain orders of the genus homo that he will not have if he can help it. He is suspicious of them at first sight. So universal and so unerring is this perceptive faculty among well-bred dogs that I have more than once suspected that human depravity has its distinguishing effluvium that it requires a dog's nose to detect.

You must have noticed that when the new dog is introduced to the new group that surrounds his master, he exercises an incredibly quick appraisement, and if there is somebody in the circle of whom he is doubtful, he shows it by what ought to be called a "gentlemanly reserve," unless the objectionable person insists, for the sake of appearances, on pushing his advances too far, and then there is a sullen and guarded warning. Put into the most concrete form, it is as if the dog said summarily; "I understand that a certain amount of politeness and self-restraint is necessary on account of my master. But you do not like dogs, and I don't like you. So cut it short and get away."

Several years ago I bought a year-old great Dane and sent him to my country place to be the companion of a boy nine

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years old who had the run of the acres. The dog was an unusually good-natured example of his class and made friends not only with the boy but with all the men on the place excepting a German stableman. I was not present when the dog arrived, but I had it from several eye witnesses that he showed an instant disinclination to have anything to do with the stableman. He allowed the rest of the establishment to take all kinds of friendly liberties with him, but the moment this man approached him he put his head down, took a fresh corroborative sniff and growled ominously. Nor did any amount of persuasion on the part of the stableman succeed in overcoming this aversion.

In view of what took place afterwards the dog's superior discernment seems very curious and interesting to me now when I recollect how slow the rest of us were in arriving at a conclusion with respect to this man. I had to discharge him when the dog had been with us a year and a half, but it was for reasons entirely unassociated with the dog, and three days after his discharge the dog was poisoned. Had I known as much then as I do now I might have saved the dog's life. But we lost him much to the sorrow of the whole family and especially of the boy, who had formed a strong attachment for him and had made him his daily companion.

I had the body opened and I took from the dog's stomach a fine sponge nearly as large as my fist and part of which was wedged into the pyloric opening. It is needless to say that this cruel and old-fashioned way of killing a dog by what was at one time called "a French button" inflicted upon the animal days of the severest torment, during which time we were helplessly ignorant of the cause. There were unmistakable evidences as to the author of the crime, and I have no doubt that the thought of the agony he had caused and the distress he had inflicted upon the family, produced some kind of satisfaction in the man's soul. He disappeared, and, so far as I know, escaped all punishment, by keeping as far away as possible from the scene of his exploit.

This experience was supplemented later by some other cases of dog poisoning to which my attention was called. They occurred at various intervals in widely separated kennels, and in two cases resulted in the loss of very valuable imported dogs. I was therefore led to consider how inadequate if not wholly futile were the ordinary means of protection against this kind of crime and how difficult it was to mete out any punishment to the criminal. It appeared to me that the dog breeders and the dog himself were as much at the mercy of the unsuspected miscreant as a public official is at the hands of any crazy Guiteau and it was this consideration that led me to the conclusion that the preventive and corrective measures might be improved. How to protect the dog and how to save him when a victim.

In the first of these measures I think we may be aided materially by consulting the dog. It is customary I know, among breeders to regard the dog's dislike for certain persons as capricious and irrational.

Irrational, I allow, in the sense that the dog does not arrive at his antipathies by any process of reasoning. But one might as well say that the young chick's instinctive fear of the hawk is capricious, or the shrinking of the young girl who encounters a smiling libertine, is unreliable. The dog's apprehension of the qualities which go to make up a poisoner are as much finer than the intelligent man's acumen in this respect, as the gouty man's detection of an easterly storm is subtler than the mercury.

It is impossible to escape the conviction, if one is keenly observant of these animals, that their best instincts are exercised along the lines of self protection and self preservation, and these instincts are so clearly infallible in the accomplishment of their ends, and so wholly anterior to the culture which man superinduces in the animal, that they are entitled to more respect than we usually give them.

In brief, I would not have any man about my dogs who does not have a natural fondness for dogs and who is devoid of the very first requisite in their keeping—magnanimity. To ascertain if he lacked these qualities, I would not consult him. I would ask the dog, and his first impression is worth heeding. Policy, self interest, will make the man lie, but no human motive that I know of will make the dog lie.

We are so bent, at this time of day, with our biology, on establishing a human kinship with the lower animals that we are very apt to overlook the un-human qualities which differentiate them, and which by

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their conservative and permanent action, set them off in a closed circuit of their own.

Perhaps you think I am pushing this reliance upon the dog to impracticable lengths. That is not my desire. It is so easy to provide men, who, whatever else their qualifications may be, have magnanimous hearts and could not inflict measureless agony to conserve their own mean purposes—and I would to a certain extent, take the dog's word for it. Once that the dogs are under the eye of a man whose duties are animated by affection, it is tenfold more difficult for the poisoner to approach him, and what is of more importance, such a keeper will detect almost instantly the first symptoms of poisoning and come quickly to the rescue. It need hardly be added that the success of remedial measures depends almost entirely, in cases of poisoning, upon instantaneousness.

The dog poisoner who is most to be feared, has a very narrow stock of material. He is limited by circumstances and prohibitory laws to a few irritant materials easily obtained and he seldom resorts to the corrosive drugs. Arsenic, phosphorus, ground glass, and the French button are his favorite weapons, because it is much more difficult in the East to obtain strychnine, and the virulent oils and acids defeat his purpose. Unless a dog is starving it is next to impossible to make him take food in which the poison declares itself. Every keeper knows with what admirable acumen the dog will open a piece of meat and roll out the pill that was intended as medicine.

Of the accessible means thus at hand, ground glass and the French button are the most difficult to detect in time and the most cruel in their results. I will not here run the risk of assisting some depraved ignoramus by describing the latter of these devilish devices. It is enough to say that none of the corrosive drugs are capable of inflicting such prolonged agony and nothing but an operation can afford relief. The dog's stomach must be opened and the foreign substance taken out by a veterinary. You will probably lose the dog in the operation, but it is the only chance. It should be said, however, that the chances of a mature and well-fed dog picking up a button are few and far between. It is the voracious and indiscriminate puppy that oftenest falls its victim. Ground glass and the arsenical preparations are much more widely accepted. But in both these cases, if the symptoms declare themselves at once in the uneasiness of the dog, which they are very apt to do, to the observant keeper, Nature, in the structure of the dog, offers a possible and immediate remedy. It is mechanical—not chemical. The dog possesses a peculiar power of voluntary vomition, and if you distend his stomach uncomfortably, he is his own best stomach pump. Pour down him a pint of sweet oil, or any handy demulcent. The mucilage that you use in your office may be a handy friend, or better still, if there is a pan of cold starch in the kitchen, pump it into him with a rubber syringe, and after a few paroxysms, he will emit the whole mass. Then at it again. The job is neither easy nor acceptable to the dog, but it is always possible to a good keeper, and if digestion has not progressed very far it is successful in nine cases out of ten.

Dogs are sometimes inadvertently poisoned by the careless placing of rats-bane about stables. It is usually spread upon bread with molasses or lard, but as the poison is of diluted quality, its effects are rarely fatal if remedial measures are taken promptly.

But after all, we must rest mainly upon precaution, even if we have to resort to basket muzzles when the dogs have an outing. But better still is it to educate your dogs not to forage with loose appetites and the best way to do that is to deprive them of their appetites before giving them their liberty.

And here I ought to tell what I know of the susceptibility of dogs to man's training with respect to their gustatory habits, for in nothing does the dog evince his adaptability to man's desires as in his eating, seeing that he was originally a carrion feeding animal—but, as Kipling ought to have said, that comes under another heading.

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THEORIES REGARDING SCENT

By John T. Bailey

"I had a glimpse of him; but he shot by me
Like a young hound upon a burning scent."
—*Dryden.*

ENOUGH has been written to fill many large volumes upon the subject, "Can quail withhold their scent," yet I have read new theories from boyhood with unabated interest. I hope, however, to avoid, as far as possible, threshing musty straw or engaging in old disputations. I propose to confine myself, for the most part, to a few peculiar and interesting phenomena coming within my personal experience, supplemented with ideas derived from old Arkansas mountaineers who, for more reasons than one, have never read a sportsman's paper and whose best read book (often they read no other) is Dame Nature's story, which is never "to be concluded in our next." Just how scent is thrown off by game birds and how it is carried to the dog's nose is a very difficult matter to determine. I imagine the dog himself, if endowed with the gift of speech, could tell us little. Probably there is a certain amount of truth in most of the theories advanced. In my own case conclusions I might have reached from many years of shooting over finely bred pointers and setters, have been constantly discounted or wholly set at naught by my experience when a mere lad, with a dog of mongrel breed, half setter and half shepherd. With this dog and an old Lancaster muzzle-loader I shot prairie chickens during several seasons. Body scent was entirely ignored by this big shaggy fellow. He was as strong as an ox, but his customary gait was a trot with his nose hugging the ground. And such a nose; he could catch a cold trail and follow it unerringly, and follow it he did until he pushed the bird into flight. When a bird rose, if it was not killed, he chased it at the very top of his speed as far as he could see it and then came sadly back for the whipping which he seemed to realize he deserved. By his motions and behavior I finally learned to tell quite accurately how warm the trail was, and many a hard foot-race I ran to get over a quarter of a mile of ground and arrive in time to get a shot.

One episode, on a September afternoon in Iowa, of which old Chris was the hero, has caused me to reject more theories regarding scent than any other. I was returning home and directly in my path lay a small field, part of which was stubble and part had been allowed to remain in grass. It looked promising, and I was anticipating a trial of the ground when, to my disappointment, two well-known sportsmen appeared over a little rise from the south and forestalled me. They had two of the finest setters in northern Iowa, and well I remember how enviously I stood by the fence and watched those dogs cover every yard of that field, as it seemed to me, grass, stubble and all. However they drew it blank and not waiting until the shooters had quite left the field I crawled through the fence and started on. About the middle of the field —and near where the grass and stubble met, old Chris became interested. Impatiently I called him but I might as well have tried to lead a wild horse as to get him away from a trail. He was evidently having trouble, though, and the trail was very cold for he progressed by inches and often retraced his steps as though to make sure. However he only went a couple of rods in all when a prairie chicken rose under his nose leaving some of its tail feathers in the dog's mouth, and the next instant a dozen others jumped from the grass within a few feet of the spot. The two sportsmen had left the field but were standing by the fence watching us and I would have given a penny for their thoughts.

The conclusion I have drawn from this and similar experiences is, that the scent which radiates from the body of the bird and the scent produced by the impress of its feet upon the ground, grass, etc., are very different; that movement, or rather muscular exercise, was necessary to produce the body scent; that a bird lying still in the grass gives out no scent; that foot-scent is retained by the ground

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and vegetation for some time after it has become too faint to give off any perceptible odor to the air. The flushing of birds done by dogs with exceptionally good noses is easily explained by this theory. That scent travels in a body with the wind I do not believe, but think it travels like sound in all directions, though more easily with the aid of the breeze. If it traveled only with the wind how could points made by dogs at several rods distance, with the air currents directly against them, be explained. Such points every sportsman has seen. In quail shooting a dog (a puppy will illustrate this best) will often point a bevy, feeding in the open, at a great distance. If the birds are flushed and followed to the timber the dog may beat the ground thoroughly, perhaps even describing a circle with a diameter of twenty feet or less, without showing any signs of game, when he may suddenly point a bird, every indication going to show that the scent is a "burning" one, which all this time has been crouching within that little circle. This, I think, tends to prove the theory above mentioned. The bird crouching where it struck the ground, gave out no scent, but to watch the dog it was obliged to turn, and to some such involuntary muscular movement I attribute the overwhelming scent which causes such a sudden point. Such points are perhaps the rule when quail have been followed to the brush or timber, the bird usually being nearly under the dog's nose when the point is made. The points made by a dog on Bob White and his family at break of day, before the birds have moved from their roosting place, seem to me a further confirmation. On such an occasion the dog points quickly and staunchly. If urged, however, he may refuse to proceed and show ignorance of the exact location of the birds. Why is this? I explain it in this way: At the approach of the dog the birds make a sudden startled movement. So many birds together give out a strong scent, but as they become quiet the scent is lost altogether or becomes so faint as to put the dog at a disadvan- the birds are again induced to

y I once saw a prairie chicken ne reapers and I marked it tch of grass not two rods in diameter. I had marked it very accurately by means of a small bush, but neither the Irish setter I had with me nor I were able to find or flush the bird until, after fifteen minutes or more I put my foot on a hillock, or rather on the prairie chicken. Now on that occasion the dog was repeatedly within two or three feet of that bird yet could not smell it. It is well known to old hunters and close observers that prairie chickens fly to their roosting places and do not run after striking the ground. They say the birds' instinct bids them to do this in order that they may leave no scent which might betray them to wolves or foxes.

Among old deer and turkey hunters in the mountains of Arkansas I have encountered many strange ideas and superstitions as they sometimes seem to me. Among other beliefs some of them maintain that a turkey has some such protective sense of smell as a deer possesses, enabling this bird to detect the approach of an enemy. In proof thereof they cite numerous instances where, in calling gobblers in the spring, the wary old fellows have taken alarm and slipped away like phantom birds, after coming up within a few rods of the caller, the conditions being such that, as these men declare, the birds could not possibly have seen them. However if you talk long with these mountaineers you will get enough information concerning the mysterious ways, habits and abilities of this extraordinary bird to explain such supernatural disappearances without crediting them with unusual olfactory powers. My own experience is decidedly against the theory, and personally, I do not believe a turkey can smell much better than a domestic fowl, his powers in this direction being limited to the detection of food at short range. If the turkey can use his nose to such advantage as they claim, I believe he is the only creature in the world so endowed, in addition to having unequalled powers of vision. And it is to the turkey's wonderful eyesight that such uncanny escapes as I have mentioned above, should, I think, be attributed. A time ago one of these simple mountain farmers, living all his life far from railroads, was showing me his old muzzle-loading rifle. It tested one's strength to hold it at the shoulder yet it was said the old man had very rarely failed to kill a

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turkey at any distance up to one hundred and fifty yards, with or without a rest.

Among other things I was much interested in his account of the killing of an old gobbler which stood in the old man's memory as one of his most notable achievements. This bird had arrived at such an age of discretion that for ten years his gobble had been recognized by the woodsmen and distinguished from the note of any other turkey. For years no man had been able to allure him by the most seductive imitation of a turkey's yelp and it had come to be the general opinion that this "gray bearded" warrior and scout bore a charmed life. Francis, who prided himself on his skill in turkey hunting, determined one spring to bag this wary fellow. Having ascertained the general whereabouts of the old gobbler's roosting place, he took up a position one morning before daylight on a point to which from the lay of the ground, he believed the old fellow would fly. Before it was light enough to see he could hear him strutting on his roost and soon after the bird flew, but lit where Francis could do nothing. The next morning he placed himself, as he thought, in a more favorable position, and in due time the great bird pitched out of his roost and struck ground within a hundred yards of where Francis sat in front of a big pine. For an hour he sat there listening to the strutting and gobbling of this old campaigner without, however, being able to catch a glimpse of him. It was very evident that this turkey had peculiar methods of his own and did not intend to walk into anybody's trap. Francis was sorely puzzled but determined not to make any hazardous attempt to stalk him and quietly withdrew. The third morning he did not sit down in front of a tree as usual, but went to another spot and got into a hole made by the uprooting of a big pine. In the mass of roots and dirt in front of him there was a hole large enough to aim through. As before, he heard the turkey strutting on his roost, though in a different place, and ere it was fairly light he saw a dim shape launch out and alight not far away. He could not see him after he lit, however. Day broke; the sun came up, and long thereafter the old fellow strutted and gobbled, not a hundred yards away, yet invisible to the impatient and disgusted man behind the uprooted tree. At last, however, he descried the bird's head over an enormous fallen tree, and at once the mystery was explained. That learned old bird had taken up his position with all the genius of a Hannibal and the caution of a Fabius. Two immense tree trunks lay upon the ground nearly parallel to each other, and between these as in a fortress the bird was strutting and gobbling, able to look over the ramparts, yet shielded from observation and protected from harm.

The distance was about a hundred yards and Francis, confident of success if afforded a shot at the body, waited long, hoping the turkey would emerge from his cover, but in vain. Often the grand old warrior, hero, doubtless of many battles, stood like a bronze statue, listening and looking for his enemies. At length Francis, in despair, resolved to try for his head. Carefully he aimed, fired and ran to the spot. There he found the gobbler in his death agony, filling the air for yards with leaves and sticks. The bullet had struck his neck an inch below the head. Had Francis been sitting down the turkey could not have been seen at all and doubtless at his first movement the old fellow would have quietly slipped down the mountain, so sheltered by the massive tree trunks that in lowering his head to run his escape could not be seen.

Born, brought up, and now living in the Boston mountains of northern Arkansas is a man who claims that at a certain season of the year deer are entirely deprived of their sense of smell. He is a hunter of considerable reputation and is said to have killed more deer and turkeys than any man in the State. In some respects he is not unlike Cooper's character of Leather Stocking, yet unlike Natty Bumpo, he has a wife and a goodly number of children whom he has supported largely by the proceeds of his hunting. Many a long jaunt have I made into the inaccessible mountain regions of the State with him and many a strange thing have I heard from his lips on these occasions. He has hunted incessantly from his eighth year and at forty-six is as enthusiastic as a boy. I remember well how years ago, on our first hunting trip, we were prospecting one afternoon looking through the pine mountains for signs of deer and turkey, when an insect, about the size of a small grasshopper came flying past. It wore a striking livery of gold

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and black and had a peculiar ricochetting flight. As soon as A. L. perceived it off came his hat, and, like any schoolboy, he was after it at full speed. After a lively chase he caught it and came back with evident satisfaction. "Do you know what that is?" said he. I said "No, never saw one before." "Well sir," he replied, "That is a buck-fly and whenever you see many buck-flies you may be sure there's right smart o' deer in the woods." Asking him why it was such a sure indication he said in substance, that this buck-fly deposited its eggs in the nostrils of the deer and as the larvæ developed they so obstructed the nose of the animal that he became entirely devoid of the sense of smell so that for several weeks he could be easily approached by hunters.*

When the larvæ matured the deer were able to blow them out and then regained their lost sense of smell. A. L. is as truthful a man as one is likely to meet. but at that time I believed he was hoaxing me, and not till long afterward was I perfectly convinced of his sincerity.

THE ADVENTURES OF MR. WILLIAM MARINER,

CAPTAIN'S CLERK OF THE PRIVATEER PORT-AU-PRINCE, 1805–1806

By Edward S. Holden

OUTING is a magazine of adventure. Its editor has shot musk-oxen in the frozen North and elephants in Sumatra, and many of its readers and contributors have sought adventures and found them by land and sea in various climes and countries. Taking us all together we are convinced that we are a daring set of fellows and that our adventures are well worth telling—and so they are. But nowadays we have to *seek* adventures. They do not come of themselves. There have been times, not so very long ago either, when they were all in the day's work. I have lately re-read Mariner's book on the Tonga Islands† and propose to tell how he got there and why, and to recommend the reading of this fascinating book to anyone who cares for fresh first-hand narrative.

William Mariner's father, Magnus Mariner, was an English seaman, the captain of a privateer, who served under Lord [illegible] the Revolutionary War. His [illegible] born in Islington—a suburb [illegible] September 10, 1791, and was sent to a school in the country at Ware to learn arithmetic, reading and writing, history and geography, French and a little Latin—and did so.

When he was fourteen years of age a certain Captain Duck, commander of the *Port-au-Prince*, private ship of war (*i. e.*, privateer, whaler and pirate in one) turned up at the Mariner house and persuaded the son of his old friend to sail with him as captain's clerk.

On Tuesday, February 12, 1805, less than a hundred years ago, the *Port-au-Prince* set sail from Gravesend and young Mariner's adventures began. He did not need to go in search of them: they came to him unasked.

The *Port-au-Prince* was a ship of about five hundred tons, mounting twenty-four long guns, nine and twelve-pounders, and eight twelve-pound carronades on the quarter-deck. She carried a crew of ninety-six men and sailed under a curious twofold commission: one from the government and the other from her owners. In the first

* [illegible] too, among some of the Indians—especially those in the far Northwest.—EDITOR.

† [illegible] natives of the Tonga Islands in the South Pacific Ocean, compiled and arranged from the [illegible] ions of Mr. William Mariner, etc. First English edition London, 1817.

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place she was to look out for prizes—England was then at war with France and Spain—and if she were not successful in war, she was to double Cape Horn and to become a peaceful whaler in the southern ocean. The crew expected to make their fortunes by prize-money. Indeed they were paid no wages at all. They simply enlisted for booty. Spanish treasure ships valued at three millions of dollars had been seized by the English in 1804, and men's imaginations were filled with the hope of plunder.

On the 6th of May the ship reached the River Plate in the Argentine, having encountered nothing worth recording but stormy weather. On the 3d of July she doubled Cape Horn and was then, according to orders, a whaler. On this day she met the *Earl St. Vincent*, an English ship, homeward bound, and learned that the Spanish had captured two English whalers and were holding them in the harbor of Concepcion (Chile). Here was their first chance for prize-money. They resolved to cut out the two English vessels from under the Spanish guns and they attempted it, but, owing to an accident, failed. Their next adventure (July 29) was at Coquimbo. One day was spent in dressing the ship so as to look like an American vessel. On the next she anchored in the roadstead, hoisting American colors, and gave herself out as a trader. When asked for samples of cloth the officers showed strips cut from the inside of their coats and three Spanish gentlemen came on board with 4000 dollars in specie to buy the smuggled goods. They were conducted below, made prisoners, and their money seized; and 400 other dollars were obtained from other victims, in the same way. Armed boats were sent ashore also and their crews broke open the warehouses and carried what they could—hides, tallow, wine, copper, with live stock—back to the vessel. Then the prisoners were ransomed and set ashore and the *Port-au-Prince* sailed away rejoicing.

We now begin to understand why it is that so many South American towns are built a little distance inland from their seaports. Buccaneers might capture the port; but the inhabitants would be safe under the walls of their city.

Early in August the same trick was tried at Copiapo, on Caldera Bay, but with no great success. In the middle of the month three small vessels were captured. On the 2d of September the *Port-au-Prince* attacked Arica, again without success, but on the following day took the small town of Hilo, capturing the commandant and a priest, and holding them for ransom. (It was here that the sea-fight between the *Shah* and the *Huascar* took place May 20, 1877.) The ship's company plundered and pillaged the town of every thing of value—even to the silver candlesticks, chalices, incense-burners, crucifixes, statues and plate, and ended by burning the place to the ground.

Then in company with the *Lucy*, privateer, the *Port-au-Prince* sacked the little town of Chinca, obtaining 168 dollars and some silver plate; and a few days later the two privateers attacked Payta. It was defended by a Spanish frigate—the *Astræa*—which beat them off. All this reads like war; but it is, in fact, mere piracy. Plunder was the only object. Patriotism was not the motive, as is very well shown by the fact that the *Port-au-Prince* planned a special attack on a nunnery and it was only saved because the surf ran too high for the armed boats to land. The date is 1805—but we are, in fact, back with the freebooters in the middle ages.

The fight with the *Astræa* had somewhat disabled the *Port-au-Prince* and she accordingly turned her attention once more to whaling, and cruised along the equator, until the January of 1806. This business did not suit the temper of the men, however, and in February and March a number of small prizes were taken, with prisoners. In May the *Port-au-Prince* was whaling again, but in June they turned pirates once more at San Blas on the coast of Mexico. At this time the captain died and the sailing master with a discontented, almost mutinous crew, set out for the Benito Islands, where they took 8,338 seal skins in twenty days; and in September they laid their course for the Sandwich Islands with the ship leaking badly. Here they provisioned but were not allowed to land on account of the sickness of one of their crew, and then sailed for Tahiti, which they missed altogether. The course was changed for the Tonga Islands, which were reached November 29, 1806.

While the ship was careened for repairs nineteen of her crew deserted and natives began to crowd on board. On Monday, the first of December, 300 of the islanders seized the ship and massacred the captain and crew, sparing only a few—Mariner among

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the rest. That ended the voyage of the *Port-au-Prince*; the adventurers had had their way, and had met their fate, but another experience awaited Mariner.

His narrative of his residence in the Tonga Islands is a classic in its way, highly praised by all who know it. He was adopted as a son by one of the king's wives and became the king's favorite. After a captivity of four years he returned to England with a few survivors of the ship's company, and there he told the story which has taken its place along with Omoo and Typee.

The point of this short paper is to show how adventures lay at hand in the beginning of our own century. These are not the fortunes of war, but the adventures of free-booters; not the manners of our time but those of the middle ages.

We sit in our armchairs and plan a trip to India. We order our ammunition by telegraph, meet with real adventures and return with a couple of good tiger skins. It is all very well; it is all real; it is manly and we do not wish to change it. But stop for one moment to consider the commission of the *Port-au-Prince*, private-armed vessel and whaler in one. Think of the English lad of fourteen, with an equipment of French and "a little Latin," going off to sea to rob Spanish towns and churches, to ransom and cheat Spanish traders, to plunder nunneries and churches, to do a little sealing and whaling the while, and finally to be a friend of cannibals in the South Seas. It is almost inconceivable that such feats were done less than a century ago. To understand how times have changed some sharp contrast of this sort must be cited. I have chosen the narrative of Mariner because it suits the purpose well, and because this paper may serve as an introduction to one of the most interesting books of adventure ever printed.

HARTEBEEST HUNTING ON TOYO PLAIN

By D. G. Elliot

ONE of the rare species of animals I desired to procure during my collecting expedition in East Africa was Swayne's hartebeest, a strange appearing antelope that is found in a few districts of Somaliland, on the great plains that are met with on the Haud, a waterless tract that extends for a hundred miles or more east and west, and several hundred north and south. These plains, such as Toyo, Silo, Mardleh, Marrar prairie and the like are the result of the ravages of the white ant. Formerly covered like the rest of the Haud with open forests of thorn trees of various kinds, this insect has literally cleared the ground of every tree for many miles in extent. Its method of destruction is peculiar but unfailing. The ant is blind and consequently for its greater protection shuns daylight, working only under [illegible]ds on wood, and when a tree [illegible]d the insect emerges from [illegible]ng a small pellet of earth, moistened with a secretion making a kind of mortar. This is attached to the trunk of the tree where it emerges from the ground, and then similar pellets are placed at the side of the first but not touching it, and then a third above them making a roof and forming the commencement of a tunnel. This process is continued by thousands of the insects working in unison with a well-conceived plan, never showing themselves to the light, and carrying their tunnels higher and higher, until the entire tree, sometimes to the very extremities of its branches is enclosed in an earthen pillar. I have seen some of these so-called "ant-hills" thirty to forty feet high, and in certain parts of Africa they are a characteristic feature of the landscape. The tree is consumed, and the insects seek another that in its turn is also destroyed. These hills remain sometimes for years, marking the spot where a tree once stood and flourished, until undermined by rains it is blown over by the wind.

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Toyo plain is about thirty miles wide and over a hundred in length and lies between thirty and forty miles south of the Golis range of mountains. The Haud is a high plateau some five thousand feet above the sea, and this elevation was reached by my caravan by way of the Jerato Pass, coming from the valley of Mandera north of the Golis. On the edges of the Haud at a place known as Adadleh were the last of these so-called wells where water could be procured; for the entire country to the south, until the broad expanse of the Haud is passed, is entirely lacking in the life-giving fluid, and the only chance of finding water at all within its limits would be after some of the tropical showers, that occur during the rainy season, and leave stray pools in cavities of the rocks or in depressions of the hardened soil. The wells at Adadleh were simply holes dug in the dry bed of a stream into which water, often the color and consistency of pea soup, would slowly trickle. It was bad enough and would be scorned by any self-respecting animal in civilized lands, but as it was wet and would run down hill if required, in this desert-like region it was beyond price. My caravan was too large to take to Toyo, as it would require all the camels simply to carry water, so I decided to leave the greater part with most of the impedimenta at the Adadleh wells and travel light to the hunting grounds. With about thirty camels and as many men I left Adadleh in the afternoon hoping to reach the edge of Toyo the next evening, as twenty miles a day is about as much as a loaded camel can accomplish. The country we passed through was without undergrowth, the trees and bushes, all armed with thorns of all kinds, shapes and lengths, scattered about in clumps and groves, and had it not been for the sandy soil and total absence of green turf, the landscape would have resembled a well-kept park in civilized lands. A thunder storm was rising in the west, presenting a beautiful appearance, the clouds black with silver edges, the center mass carrying on its crest a glittering rainbow. It was a cheering sight in this thirsty land bearing the promise of fresh water.

On the third day after leaving Adadleh we reached the edge of Toyo and camped, and some natives coming to us, the first question asked was if there was any water near, and we were made happy by being told that in one place there was a considerable pool, or, as my Somali interpreter described it, "awfully most sea." Hartebeest were said to be everywhere on the plain, but more numerous in some places than in others, but especially towards the center away from the forest-bordered edges. About a four hours' march from our camp out on the plain was a place called Gellalo, where a half dozen stunted thorn trees, sole survivors of the forest that once covered this plain, promised a partial shade, and I decided to camp there and so be in the midst of the hartebeest country. Immediately after starting we entered Toyo plain which stretched away in every direction, flat, bare and featureless, mostly covered with sand out of which a low stunted bush grew, in many places so thickly as to hide the soil. A mirage of blue waters allured us onward and from out of its liquid surface in the far distance rose the group of trees that marked our objective point. The sun was hot and we plodded wearily along with nothing in sight to enliven the dreary landscape; but as all roads have an ending we reached our destination after five hours' marching. Just before arriving at Gellalo large herds of Sœmmerring's gazelle and a few hartebeest were seen and a bull of the latter was shot at long range.

The hartebeest has not an attractive shape, the line of the back sloping rapidly from the withers to the root of the tail, and the animal looks as if he was always standing up hill. The "Sig" which is the Somalis' name for this antelope stands over four feet high at the withers, and both sexes carry curiously curved horns, these varying in size and extent and manner of curvature according to age and sex. Some horns of bulls measure over twenty-four inches from tip to tip, but those of the majority are much below this figure.

There are a number of different species of hartebeest found in various parts of the African continent, but the ones inhabiting Somaliland are the handsomest, being the most richly colored of the known forms. Swayne's hartebeest dwells on open plains, and is never found in forest lands, but keeps to the bare country where its vision is not interrupted by any intervening object, and it trusts to its great swiftness when danger approaches, to carry it beyond the reach of its enemies. It goes in troops and herds, from a half dozen to several hundred indi-

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viduals. On the plains inhabited by these animals the bushes are rarely over two feet high, and very few of them in any place, so that stalking in the usual acceptation of the term is practically an impossibility, as the hartebeest sees the hunter much more quickly than they can themselves be observed. Generally they are first sighted along the horizon line of the plain, looking like black spots in the distance, but recognizable from their peculiar shape. It is an ungraceful creature both in appearance and in its action when in motion. But while it moves away in a kind of lumbering canter, it possesses the greatest staying power, and is really the swiftest of all the antelopes, always graduating its pace to that of its pursuer, and keeping the same distance between them, looking back occasionally as if to satisfy itself that its enemy had gained nothing in the chase. Single bulls are approached more easily, but the larger the herd the more difficult it is to get near them, as the courage of the entire number is only equal to that of the most timid, and as soon as one begins to run all are off at once. When sighted at a distance on the plain, the hunter walks toward them in a direct line if they are busy feeding or moving slowly away, but should they stop to look around the pursuer takes a slanting direction as if intending to pass at an angle, or had not seen them. Sometimes when almost near enough to risk a shot, they begin to run in their apparently rather slow clumsy-looking canter, but which is not usually kept up for any great distance before they stop and turn to look back; when this happens, and it usually does many times before the quarry is secured, or it runs away altogether, the hunter has his work to do over again. It is therefore only by the exercise of much patience and considerable staying powers that a sufficiently near approach is gained for a fairly certain shot anywhere between two and three hundred yards; nearer than two can seldom be obtained, and frequently three is exceeded. An animal not wounded in a vital part, or with one leg broken, will often run clear out of sight and escape, and it is practically useless to follow such a one as a favorable opportunity for a second shot is seldom obtained. On the plains where the hartebeest dwells there is no water save that which may occasionally fall in showers during the brief so-called rainy season, and this antelope must go practically without drinking, at all events for long periods. The dew, however, is at times very heavy, and the hartebeest may get sufficient moisture for their needs from this source. Those that were killed were in excellent condition, but like most African ruminants they possessed no fat whatever. The flesh is dry and from the absence of fat is only fairly palatable.

Over this plain the wind blew a gale continually, sending the sand flying in clouds, and everything in camp was covered, the fine particles even penetrating into our boxes. When hunting no thought was given to the direction of the wind, and it did not appear that the wild animals paid any attention to the scent of their pursuers, but always permitted the hunter to approach within a certain distance in order that their curiosity, which is very great, could be satisfied. After two or three days in camp the fever had left me and I was able to take the field after the wily game. My assistant, Mr. Akeley, and I went out, each however going in a different direction. The wind blew furiously and the air was filled with clouds of dust which did not add to the pleasures of the hunt. We were both mounted on our ponies with our shikaries trotting alongside of us. Akeley soon disappeared over a rise of the ground, for the surface of the plain is very much like our own rolling prairies, and I rode on alone. Small herds of Sœmmerring's gazelle were in sight, but they paid little attention to us as we passed, merely lifting their heads and gazing at us for a few moments and then resumed feeding. Soon on the sky line some dark spots appeared and my gun-bearer Elmi pointed to them uttering at the same time the word "Sig". The spots increased in number as we drew nearer and it was evident we were approaching a herd. The animals seemed uneasy and although I had dismounted, and was approaching them by the most approved method of Somali hunting tactics, some young animals or a cow became too nervous to remain quiet any longer and started off on a canter, taking the whole herd of perhaps a hundred individuals with them, before I had come within five hundred yards.

I knew it was useless to follow them so seeing another black spot a long distance away I went after that. I followed him for a long time, getting within three or four

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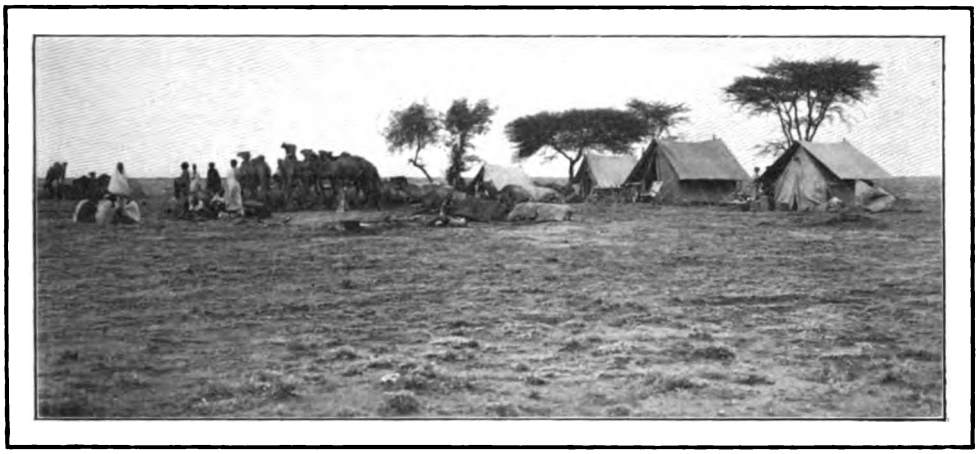

CAMP AT GELLALO, TOYO PLAIN.

hundred yards, when he would canter off for a short distance and then begin to walk again. I persevered although the sun was getting very hot and my rifle increased in weight every moment. Occasionally the hartebeest would stop and half turning around would gaze at me, and at such times he appeared black as a coal and very large. He kept up his tactics, running, walking and stopping to look at me, and I never got any nearer to him than four hundred yards or thereabouts, but as he was going in the direction of the camp I still followed walking at a rapid pace. At length I was only a little over two hundred yards from him and he stopped again to look at me. I fired at him hitting him behind the shoulder, when he dropped, but struggled to his feet and dropped again and when I reached him he gave a loud bellow and died. I rode to camp and sent a camel for the hartebeest, and found Akeley already there and soon after three camels that he had sent out came in bringing his three animals, a bull and two cows. Our camp looked like a market when all four hartebeests were laid out in a row, and it presented a busy scene for the remainder of the day when the operation of skinning and preserving the hides was going on.

The bull I had killed was evidently very old as white hairs had appeared about the muzzle, and the horns had been worn nearly smooth from the strange habit these animals have of kneeling down and rubbing their horns upon the ground so that in time the ridges which are often quite deep are made to disappear entirely.

I was, at this time, in the territory of the Habe Yunis tribe, one of the most powerful in this part of Africa, and which could place several thousand warriors in the field. Like all of the natives of Somaliland they are nomads, wandering from place to place in search of water and pasture for their flocks and herds. Great numbers were at this time temporarily settled just south of Toyo, the Sultan and his court having made an abode there.

One morning when we were busy with our specimens beneath the trees, a man rode up and announced that Sultan Nur was then on his way with all the male members of the royal family to pay us a visit. Having announced my willingness to receive him, the messenger departed, and soon in the distance a body of horsemen were seen advancing slowly. When the herald reached them and delivered my reply they increased the speed of their horses to a rapid trot and came on, company front, to the spot where I was sitting. The horses were gaily decked with bright colored worsteds hanging from the bridles on either side of the head and also down the chest, while the high-backed saddles were covered with furs of various kinds. Each man was armed with two spears, and a shield to ward off any blows directed at them was hung upon the left arm, and the escort was arranged on either side of the Sultan who occupied the place of honor in the center. As they arrived where I was they stopped and one advancing before the rest commenced a chant of welcome, which after expressing the Sultan's pleasure at our presence in his country, consisted mainly of extravagant statements

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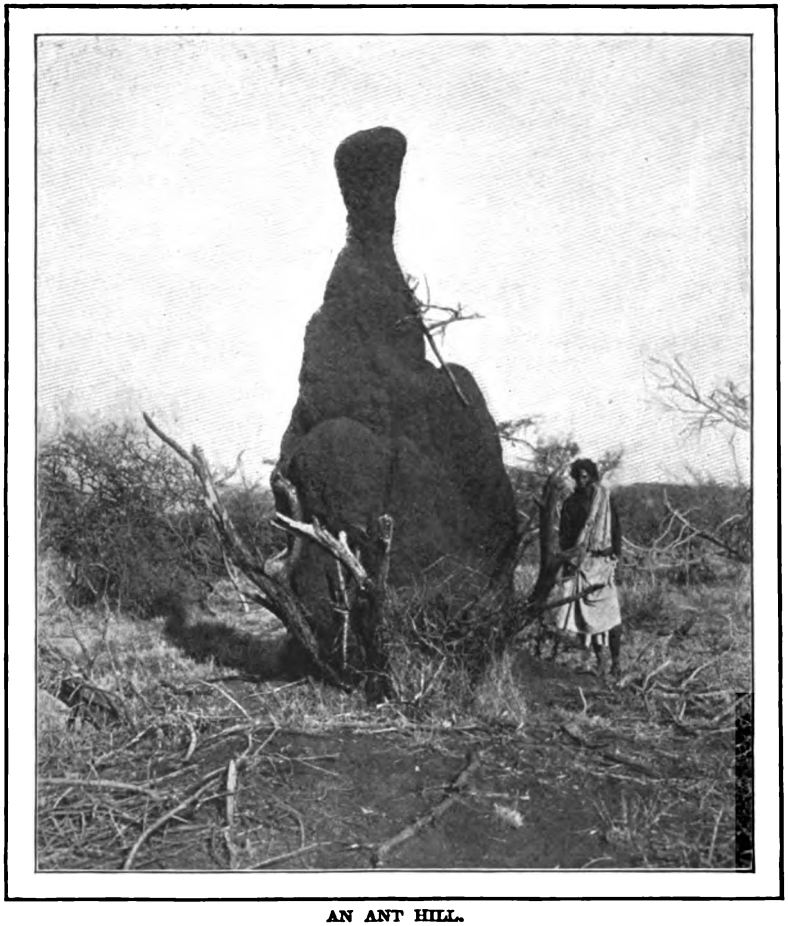
of the power and might of the Europeans and Habc Yunis, especially of the latter. When this effusion was finished, and it took some time, the Sultan dismounted, and I rose from my chair and shook hands with him and expressed my pleasure in welcoming him to my camp, and sending for the one high-backed chair we possessed seated his "Majesty" in it. He was over six feet in hight, of a pleasant countenance, dignified in bearing and with manners as easy and courtly as one is accustomed to witness in the higher circles of civilized people. The various members of the royal family arranged themselves behind his chair and were evidently deeply interested 'pectators of all that transpired. As soon the Sultan had taken his seat, his follow- commenced to give an exhibition of their emanship, riding away singly or in pairs at topmost speed, tearing over the plain in all manner of evolutions, and then returning to our position and throwing their horses on to their haunches by a sudden jerk of the powerful bits, shouting at the same time "*mot, mot,*" their word for welcome.

After each individual had given an exhibition of his skill the entire troop rode off in two equal parties, and went through the evolutions of a sham fight, advancing to the attack, thrusting with the spear and guarding with the shield on which the point of the spear was received. They had fine ponies, much superior to our own, and in the best condition. The reception ceremonies over, the Sultan settled himself for a talk, and for what I imagined was the chief reason of his visit, to obtain medical assistance, for he was evidently in poor health. There had been a great battle in



AN ANT HILL.

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the vicinity of my camp the previous year between two branches of the Habe Yunis tribe on the disputed point as to who should be sultan, in fact an insurrection against the throne, one section of the tribe rallying around a relative of the present ruler who claimed to be the rightful heir. This, of course, was disputed by the old man who was my temporary guest, and so a trial of arms was the result. It was a bloody conflict, and great numbers of both sexes and all ages were killed, for these people are true savages and wage war with all the horrors a savage can impart. Sultan Nur was victorious, the rebels were subdued, and the rival claimant was obliged to flee into a neighboring country.

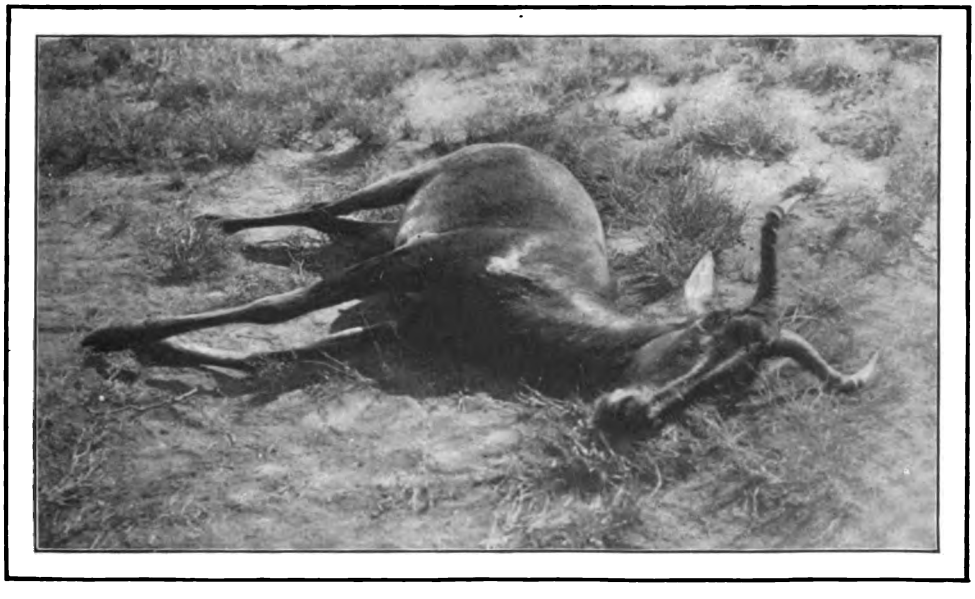
He was much interested in the preparation of our specimens that was going on in camp, and expressed great astonishment when I told him the animals would all be mounted and appear again as they did in life. He evidently did not believe this, but was too polite to show his want of faith. He was an interesting figure in savage life, one who had ruled his people for many years and had been the hero of a hundred battles. After giving him some coffee, I terminated the interview, and he went away to enjoy a siesta under a tree.

Although there was no water on Toyo plain, we had been visited by numerous showers, and two large pools had been formed near our camp, and these made us independent and enabled us to prolong our stay for ten days.

Hartebeest were almost always in sight, and occasionally a solitary bull would approach and have a good look at us, but the least movement of any one in his direction would cause him to take a rapid departure. We were out every day, following the tactics already described, and usually secured at least one animal to reward our efforts. No other game was hunted, for though gazelles were numerous they could be obtained in too many parts of the country for us to waste any time on them when the rarer species could be secured. No oryx were seen at any time which was singular as we afterwards found these very numerous south of Toyo; and they were generally to be met with on open plains, frequently in company with hartebeests as I afterwards found was the fact on Silo plain.

A few birds visited us occasionally, but we were too far from the tree country for many of them to come to our camp. One rather striking looking species with a b'ack body and white head (*Heteropsar albicapillus*) was rather common, and stayed about the camp all the time we remained and was very tame and unsuspicious.

I secured a few specimens for identification and for the locality. I had no facilities for carrying bird skins and therefore much



DEAD BULL HARTEBEEST.

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to my regret, I could not make a general collection, but had to be contented with representatives of as many genera as I could obtain. I all the more regret my inability to make a collection as in all my wanderings in strange lands I never was in a country so bountifully supplied with birds as was this part of the Dark Continent. Once when I was sitting under the trees two very curious starlings alighted near the pool of water, and were the first of the species I had seen, indeed I only met with it twice, on this occasion, and again a small flock on the southern edge of the Haud. The forehead is yellow with the back of the head and throat blue-black, an erect round wattle across the head in front, and a smaller one running lengthwise with the head, and two long and rather broad ones were pendant from the throat. The general color of the plumage was a slaty-gray, with a white rump, and black wings and tail with some white on the wings. The bill was white, feet flesh color and eyes black. The Latin name of this curious species is *Dilophus carunculatus*. The individuals that visited us were rather shy and came to the camp evidently to drink at the rain pools. In the small flock there was one female, recognized by the absence of wattles, but we were not able to secure her. They were very busy upon the ground apparently searching for seeds or insects, perhaps both, though probably insects were chiefly desired, and on being approached flew rapidly for a short distance and then alighted on the ground, or in one of the thorn trees near the tents. The wattles were very conspicuous at all times, the two pendant from the throat flapping about as the birds moved their heads, while the two on the crown stood upright. Upon the plain a species of plover was constantly met with (*Stephanibyx coronatus*) and indeed it appeared to be generally distributed about the country. It always drew attention to its presence by an incessant screaming when on the wing, but on the ground it was silent, running a short distance before one and then standing motionless and regarding intently the intruder on its domains. The instant, however, it took wing it began to utter its shrill cry and never ceased to make all the noise it could until it alighted. The action seemed to be automatic, that when the wings opened the bill did likewise, and the pent-up voice rushed out without any volition on the part of the bird. This shrill voice was heard not only during the day but also at all times of the night, the bird vociferating its displeasure at everything whether man or beast, that disturbed it in its avocations. This automatic arrangement of wings and vocal organs was

HERALDS ANNOUNCING SULTAN NUR'S APPROACH.

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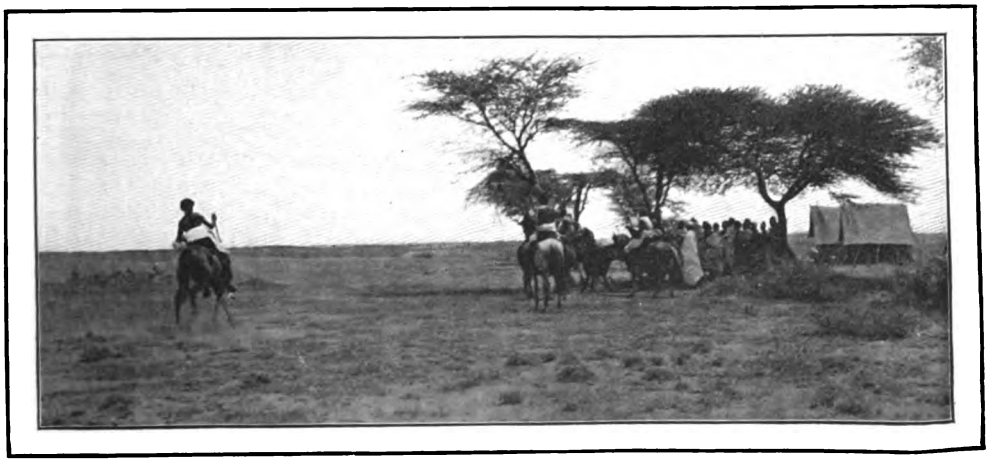
extremely annoying to us when hunting on the plain, for as the bird was not easily seen when on the ground, it remained so motionless, it always took wing unexpectedly, and its shrill cry was certain to alarm any animal in the vicinity and cause it to be more watchful of approaching danger, and therefore many an otherwise successful stalk would be brought to naught. It may be easily imagined then that this bird was not regarded favorably by hunters.

The hartebeest cows at this season had young with them, and the little creatures as they appeared at a distance did not seem much larger than rabbits, yet it was surprising to witness how swiftly they could run, easily keeping up with their mothers even when in full flight, and not infrequently going ahead and leaving them. A band of the Habe Yunis rode up to our camp one morning, and one of them carried on the horn of his saddle a young hartebeest which he had caught alive. I bought it for five rupees or the equivalent in cloth, and we kept the little animal about camp while I remained at Gellalo and it became very tame and much at home; but it had to be killed before the camp was moved as we could not possibly carry it with us, and to turn it loose would merely condemn it to a lingering death from starvation, or else to fall a prey to some hungry hyena, or wandering lion or leopard. At the expiration of ten days I had secured fifteen specimens of hartebeest of all ages and sizes from the old bull and cow to the baby of ten days old, and I marched south beyond Toyo into the country of the Dibetag or Clark's gazelle, a still more rare animal than the one we had just been pursuing, and which was represented in only one or two collections in the world.

Perhaps it would not be out of place here to give a short account of the known species of hartebeests and a description of the several groups into which the sub-family is divided. Hartebeests are, or, in one instance at least more properly *were*, found all over the African continent, from Morocco, Algeria and Tunis in the north, to Cape Colony in the south, and over the whole breadth of the land from the east to the west coast. The genus is also represented in the peninsula of Arabia.

Nine species and sub-species are recognized at the present time and these may be divided into three groups whose members assimilate to each other in their coloring. The first group with a uniform brown or rufous color contains but two species, one properly a sub-species, the bubal (*B. buselaphus*) of northern Africa and Arabia, and the West African bubal (*B. major*) of Gambia, Lower Niger district and interior of Cameroons. The second group, with a paler fulvous or fawn color, has four members, the Tora (*B. tora*) of Upper Nubia, northern Abyssinia and Kordofan; Coke's hartebeest (*B. cokei*) of eastern Africa, from Usagara northwards to Kilimanjaro and Masailand; Lichtenstein's hartebeest (*B. lichtenstein*) also of East Africa, north of the Sabi River, throughout Nyasaland and Mozambique to Usagara, opposite Zanzibar, and Neumann's hartebeest (*B. neumanni*) from



PREPARATIONS MAKING FOR THE SULTAN'S SIESTA.

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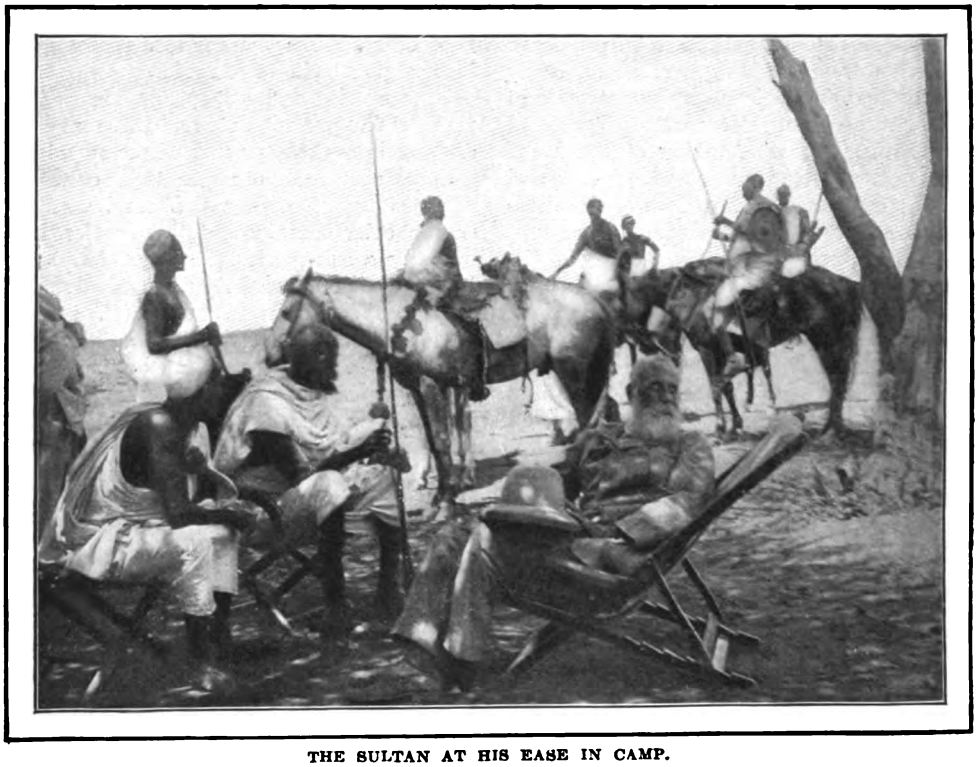
the vicinity of Lake Rudolph, East Africa. The third group which contains by far the handsomest species of the sub-family remarkable for a rich chocolate brown or brownish fulvous coloring made more conspicuous by black patches and bands, dispersed over head, body, and legs, has three members; the oldest known of all, the Cape hartebeest (*B. caama*) of South Africa, south of the river Limpopo, but extending north along the margin of the Kalahari desert, and Jackson's hartebeest (*B. jacksoni*) from interior of British Central Africa, north of Lake Baringo, Uganda, probably extending to the White Nile westward into northeast Congoland, and Swayne's hartebeest of Somaliland and Shoa. Sometimes these animals are assembled in groups according to the shapes of their horns, and then the arrangement is slightly different and as follows: Horns forming a U when viewed in front, West African bubal; horns forming an inverted bracket ∽∽, the Tora, Neumann's, Swayne's and Coke's hartebeests; horns forming a V viewed in front, Cape and Jackson's hartebeests, and horns curved inward toward each other before the final backward turn, Lichtenstein's hartebeest. Of these five animals the Cape hartebeest has already become practically extinct in the Cape Colony, and since the Boer war it has probably also disappeared from the Orange River Colony and the Transvaal.



THE SULTAN AT HIS EASE IN CAMP.

Swayne's hartebeest, from its restricted distribution, will probably be one of the first to disappear from its native haunts, and as civilization penetrates the wilds of the Dark Continent, the usual fate of all wild creatures will overtake these splendid antelope, and they will vanish from the earth.

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PHYSICAL TRAINING FOR WOMEN

THE ATTAINMENT OF NORMAL WEIGHT

By J. V. Gillman

THERE has never before been a time when so many women of culture and refinement were working to improve their general physical development as now, and no request is so commonly made as for work which will take off or add on flesh. To the beginner it will seem very strange that the same exercises which reduce the

Photograph by James Burton.

EXERCISE NO. 1

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Photograph by James Burton
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[illegible] of one too stout are given also to [illegible] who desire to increase in weight. [illegible] one thinks about it this same para- [illegible] in the system by in- [illegible] ulated to correct what- [illegible] ther they tend toward [illegible] of flesh. Such a [illegible] up a normal body, [illegible] on one side of the line [illegible] the one employed by [illegible] especially by Professor Anthony Barker. The exercises given here have been chosen to meet these peculiar demands of twentieth century womanhood, and are calculated to give the student normal weight.

The reason for the simplicity of any system of physical training is evident to one who understands the physiology of a muscle. Such an one knows that the exercise of any part of the body, say the arm, will, if that arm has a superfluity of fatty matter, re-

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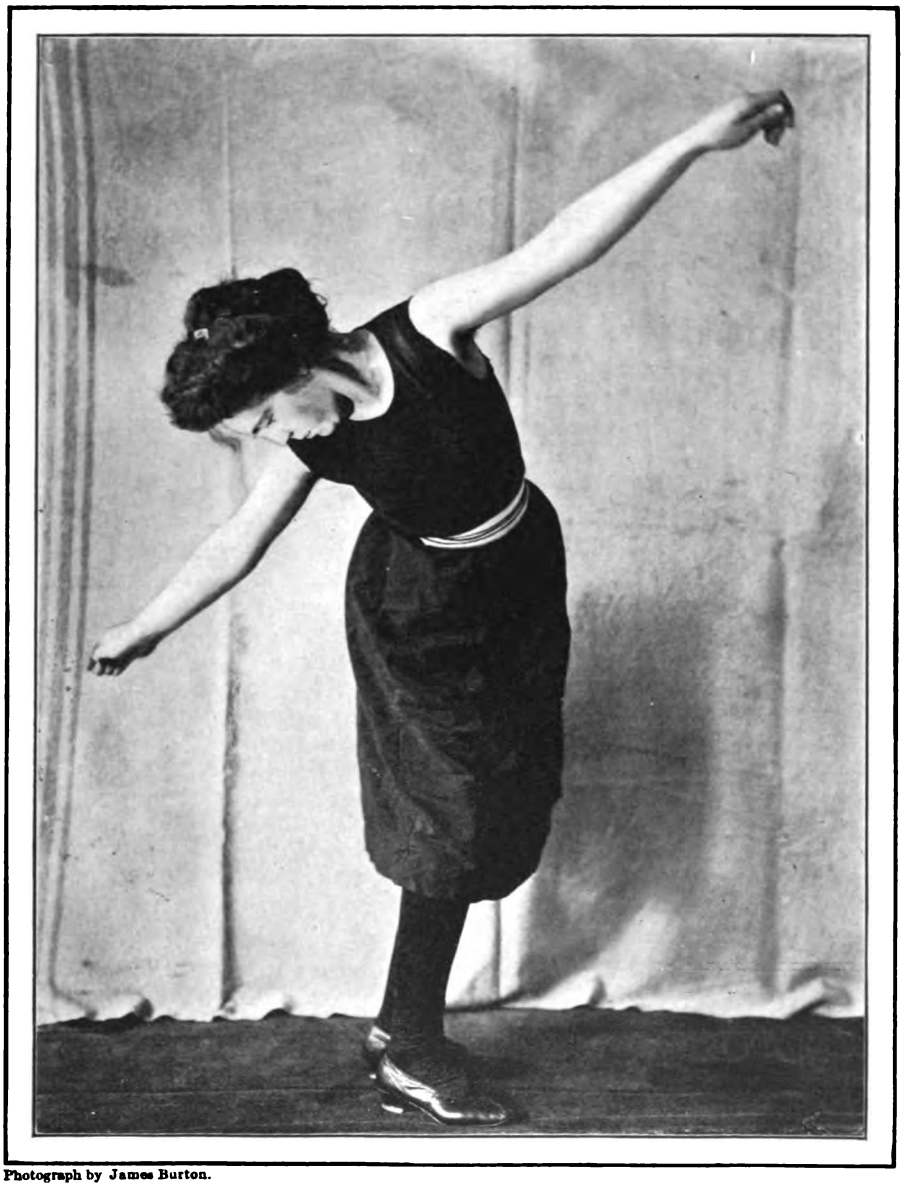

Photograph by James Burton.
EXERCISE NO. 3.

move such matter. Likewise, if the arm is thin and the muscles underdeveloped, the same work will build them up. The former process is a much more rapid one than the latter. The beginner is likely to be very greatly surprised at the facility with which weight may be reduced. The average untrained woman of medium size will find no trouble in lowering her weight two or three pounds in less than half an hour by merely dressing rather warmly and going through rapid exercise. On the other hand it takes sometimes weeks to produce a very decided gain. The results of training vary greatly, however, with different individuals; in general the younger the woman the more rapid will be the results of work upon an underdeveloped muscle.

Since exercise tends to produce normal proportions in any muscle it is evident that a woman desiring either to reduce or add weight must make use of such exercises a

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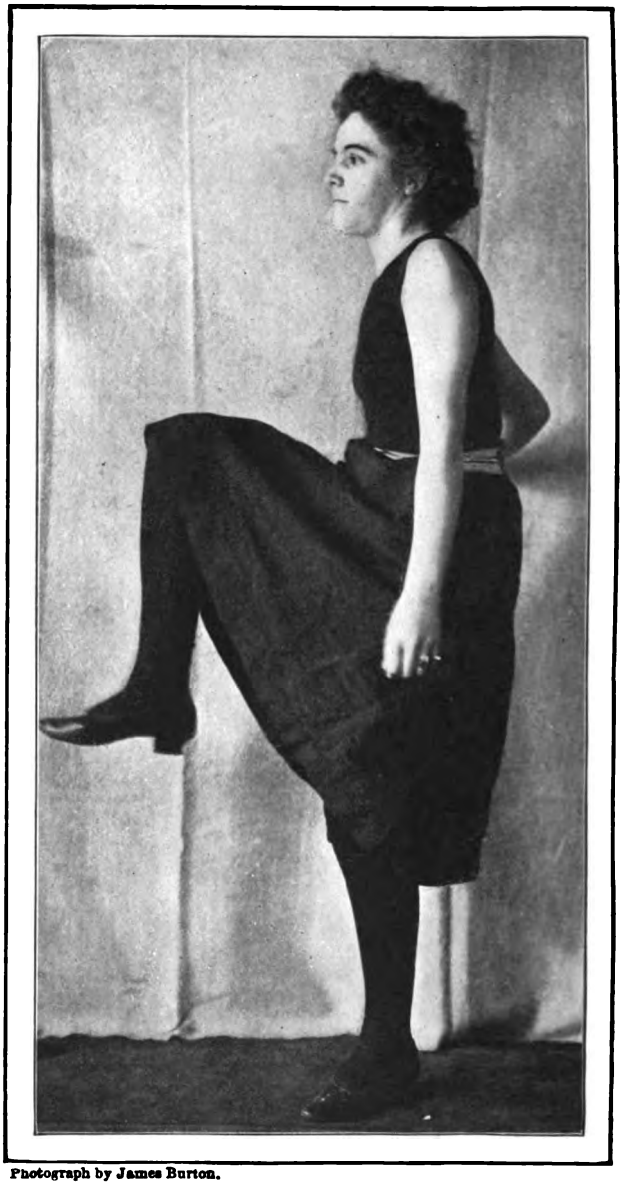
will bring into play as nearly as possible all the muscles of the body. The work here suggested is calculated, therefore, to reach such portions of the body as are usually most troubled with overstoutness and which are likewise in many persons the ones that most need building up. They require no apparatus save in one instance a stick. For this a broom handle or walking stick will serve. Those performed while in a standing position are best done before a mirror so that, by watching herself, the pupil may correct any tendency to awkwardness or half-hearted endeavor. If the woman desires to reduce flesh it is better to take the exercises as rapidly as possible and with rather more clothing on than would be advisable in the case of one who is not over-fleshy.

The numbers of the exercises correspond to the numbers of the figures illustrating them.

(1). Take a walking cane or other stick three feet or more in length and grasp it with both hands, the palms in front. Raise the arms above and back of the head. Bend them at the elbows and lower the stick until it rests across the shoulders. From this position raise the stick slowly until it is held at arm's length above the head, at the same time breathing in until the lungs are expanded to their fullest capacity. Now lower the stick to its former position, holding the breath until the stick touches the shoulders, then exhausting the lungs. Repeat this till the arms are tired.



Photograph by James Burton.
EXERCISE NO. 4.

The effects of this exercise are felt at once. To stand with the stick grasped as in the starting position throws the shoulders back and brings the chest to the front. Both the shoulder and chest muscles are, therefore, brought into use while the lowering of the arms when the lungs are full forces the air into unused lung cells and develops new powers of expansion. This exercise is particularly good for women who feel the need of chest and bust development and tends in the case of the fleshy person to reduce the shoulders and upper arms to normal proportions.

(2). Stand with the feet together. Ste forward with the right foot and strike with the left arm as though striking at adversary. The difficulty with this exe is to give the proper movement to the c

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and shoulder. The tendency is merely to push forward the arm. In addition to moving the arm forward the chest should be turned part way round from right to left and the right shoulder extended as far as possible. The value of the movement is that it takes in the muscles of chest, arm and shoulder while at the same time the abdominal muscles receive a share of the good. The striking-out movement should not be so swift as to strain the muscles, as happens when one strikes heavily and misses a punching-bag, but rather slow. From the forward position the chest and shoulder should be brought back to the normal position and the movement repeated and reversed.

(3). Extend the arms at the sides. Bend (twist) to the right until the hand touches the leg. Straighten up and bend to the left until the other hand touches the other leg. This brings into play the side muscles of both chest and abdomen. This movement may

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be varied with very good results by bending to one side, and then, instead of straightening up to the first position, bending around backward, to the left and forward to the right, as shown in illustration, letting the head move in a circle, the spine working as though it were a spring attached at the hips and capable of being bent and moved round and round the point of attachment; the body being bent with a twisting movement.

(4). This is one of the best possible exercises in the list prescribed for women. As it strengthens the muscles about the organs which are peculiarly feminine, drives away any tendency to fattiness about the stomach and loosens up the organs which too often have been compressed by tight lacing into unnatural relationships. Stand in the normal position and kick up with the knee. The difficulty discovered will lie in the tendency merely to kick with the foot as one does when desirous of knocking an old hat off the walk. To overcome this imagine that the leg ends with the knee and with the knee kick as high as possible. A rule often given to backward beginners is to try to kick the chest with the knee. It will be immediately noticeable that this brings into use the pelvic muscles, loosens the hips and has a tendency to raise from their abnormal place on the pelvis the organs which have been forced out of their natural position by such evils of dress as feminine flesh is heir to.

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(5). Stand in normal position. Bend the elbows and wrists so as to let the fingers rest upon the shoulder blades, the arms forming, as it were, two circular loops above each shoulder. From this position straighten the right arm out diagonally in front and as it reaches its outmost limit extend the shoulder as though you were trying to touch some object just out of reach. Return to first position and do the same with the left arm. This exercise tends to help the shoulders by affecting many muscles that do not come into play ordinarily, yet have much to do with the beauty of a shoulder's formation and the gracefulness of its action. Its results will be seen in the removing of superfluous flesh and the filling up of hollows where the shoulders are not normally developed.

(6). Standing normally with the feet close together, bend the knee of the left leg so as to remove all weight from it, throwing the entire weight of the body upon the right. Allow the right hip to follow its natural tendency, which is to fall outward and back until the position is the ugly one of a careless schoolboy who finds a lazy attitude more restful than the proper one with the weight on both feet. It will be noticed that the outer edge of the hip joint has opened much as though it were about to be unjointed. From this position return to the normal

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and removing the weight from the right leg throw it in the same manner upon the left. Change from one position to the other as rapidly as is comfortable. There will be a decided feeling of strain at first, showing that muscles about the hips which have been neglected are being brought into action and given new strength.

(7). Stand erect with feet close together. Close the fists and bend the arms at the elbows. Now bring the arms forward holding the forearms perpendicular to each other and to the trunk. Let the shoulders come forward until the elbows touch each other and the forearms lie side by side. Now, without bending the elbows, move the arms quickly backward and outward, throwing the shoulders back as far as possible. Repeat until the muscles of the chest, breasts and shoulders begin to feel the effects. Aside from its advantage as a regulator of flesh this exercise tends to straighten the shoulders and give a more erect carriage.

(8). This is a rather complicated exercise, bringing into play the muscles of legs, back, arms and shoulders. From normal standing position rise to the tip toes, throw the arms upward and backward as shown in the illustration, and bend forward from the hips as far as possible, then back to first position. Besides working the muscles mentioned above this exercise expands the chest and loosens the abdominal organs and should be done slowly at first.

In all these exercises the student of physical culture must bear in mind that for the woman who is really in need of a certain exercise that exercise will at first be difficult, for the reason that the muscles which it brings into play have grown weak from disuse. But little by little they yield to the will until a bit of work which at first seemed impossible becomes easy and pleasant. This is specially true of such exercises as involve abdominal and pelvic muscles, and no doubt this is the very reason why those muscles are most likely to be underdeveloped or covered with useless fatty tissue. But there are no exercises of greater importance, specially for women who expect sooner or later to become mothers, for thus the organs which will bear the strain of motherhood are freed from useless tissue and strengthened in a way that makes the ordeal less liable to dangerous complications.

One thing to be guarded against is overexertion during the first stages of physical training. Overwork strains and leads to bad results. At the same time one must not allow fear of overwork to lead to lack of system or frequent intermissions in the exercises. Do a little work and do it *regularly*. The stiffness which is sure to follow the first exercise is not serious and does not

Photograph by James Burton.
EXERCISE NO. 7.

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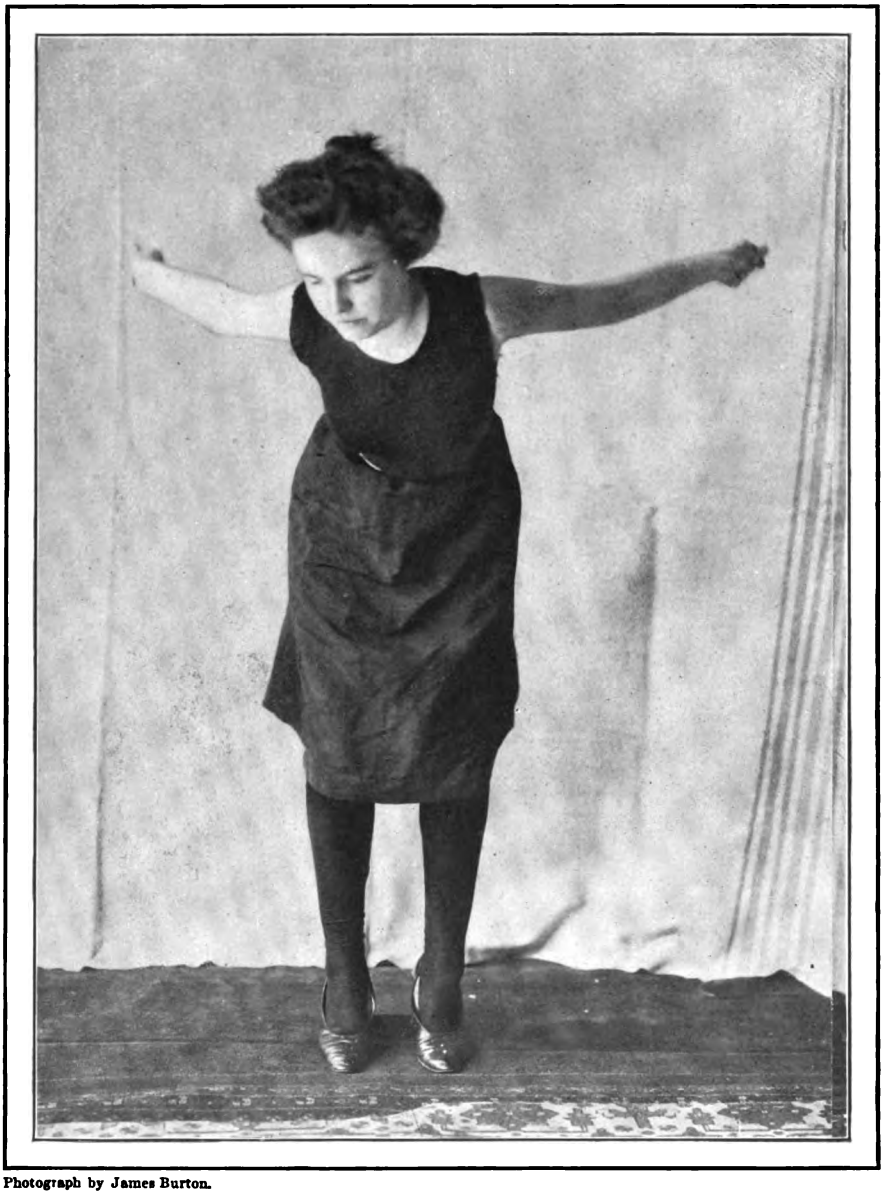
indicate overwork. Stopping exercise for a few days to allow it to go away only insures another similar attack. Disregard it and go on with the work. The stiffness will disappear even sooner than if the muscles were given entire rest and will not return so long as the work is continued. A tepid bath turning to cold as the pupil can stand comfortably, should follow the exercise, which is best taken in the morning on arising.



Photograph by James Burton.
EXERCISE NO. 8.

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THE QUAIL OF THE PACIFIC COAST

THE VALLEY QUAIL OF CALIFORNIA

By T. S. Van Dyke

ON the Pacific coast are three varieties of the blue or crested quail, of which the most numerous is the valley quail, so called from its gathering in the fall in great bands of hundreds, and even thousands, which, before they were much hunted, spent most of the time in the valleys instead of in the hills where they were hatched. But it lives everywhere from coast to mountain top, except in the higher ranges where it disappears toward five thousand feet above the sea. From 1875 to 1885 I lived where these birds were in sight or sound, morning, noon and night, the whole year round, and never saw any evidence of their raising a second brood in a season. An occasional late brood is doubtless due to the destruction of the first nest. It roosts in terrific cactus into which it flies at full speed or in trees out of which it goes at dawn like a charge of grape shot, and as it loses no eggs by wet weather and suffers none from winter freezing, its natural enemies cannot keep it down. Up to the rapid settlement of the country and the advent of the cheap breechloader its numbers were beyond all comprehension, especially in southern California. But under the rigid protection it now has by a limit of twenty-five a day to the gun and the stoppage of market shooting it will soon be plenty again.

Its length is about eleven inches for the largest specimens with wing of four and a quarter, or nearly the same length as Bob White, with wing about half an inch shorter. But as the tail is about an inch longer than that of Bob White it is really a smaller bird and not so plump. Its color is ashy blue or slate, with chestnut gloss running into warm golden tints underneath, mottled with tawny white, black and cinnamon on the belly, with black throat on the male, a white line over the eye and white collar around the black throat. Both sexes have a plume of black, imbricated feathers about an inch and a quarter long, curving forward over the bill. In shape it is very graceful and in action far quicker than Bob White, except on the wing where the difference in speed amounts to little; although the common opinion is to the contrary, because under the different conditions it is a harder bird to shoot.

Up to a certain point the valley quail has not the slightest fear of man, but rather enjoys showing that he is not afraid. No other game bird lives so continuously in sight of man, advises him so industriously of his presence, and makes himself so much at home in his garden. Morning, noon and night his call rings from the hillside by the house; he stands on the granite boulder and surveys you with an air of defiant impudence, trots along the road in front of your horse and helps himself to your finest grapes. With encouragement he will become tame enough to associate with your chickens and dust himself in your flower beds. In a cage he makes himself quickly at home and with plenty of room would probably breed in captivity.

No other bird, except his lively cousin of the desert, Gambel's partridge, equals this bird in vivacity. Unless disturbed he moves little on the wing, but his feet are rarely at rest, and when they are his tongue keeps up a low twittering. One can hardly see as much of him as I did for years without believing that to some extent he talks. Some of its many notes are going nearly all the time, even in the smallest bevy. The most common of these is the assembling call which it keeps going when there is no need of it, so far as you can see. This is of three flute-like notes with the accent generally strong on the second and sounding much like *O-hi-o*. But the accent is often shifted to the first and last notes so that it sounds like *Tuck-a-hoe*. Again the first is suppressed, the middle one more strongly drawn, and the last dropped so that the call becomes a ringing *k—woick*. The alarm is a sharp *whit-whit-whit* of metallic ring, mingled with a muffled *wook-wook-wook k-wook-ook* and when the birds are

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'.'S PARTRIDGE, SWIFT RUN-
THE DESERT SOUTHWEST.

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so scattered that they rise singly, many give a sharp *chirp-chirp-chirp* when they rise near you, while nearly all that rise wild are silent. The brooding call is a soft *wah* or *waw* from the male on some bush or cactus near where the female is sitting. During this time he often utters a sharp *tee-oo,* but this is most always when he is on the ground and generally out of sight in cover; while the other is almost never heard except when he is in sight on some perch.

By that class of sportsmen to whom size, flavor, heads, etc., count for nothing but who love game for its slippery qualities, the valley quail where well known stands at the head of American game birds, being surpassed in smartness only by Gambel's partridge. For no other bird equally approachable and of equal numbers can so puzzle even the expert as these two. Like its cunning cousin, the valley quail trusts first to its legs to escape and often when you see one run along the ground and then break into flight it seems a needless absurdity for the increase in the speed is so slight. No one need have any scruples about shooting at a single bird running, especially when dodging among small bushes.

One of the great bands often allows you to come within sixty or seventy yards on the edge of the plain and then often moves like an army. First the pickets are driven in, running into, or flying over, the main body to alight in front. Then part of the main body moves safely out of reach with every swift leg moving in concert. If the danger is imminent the whole moves; sometimes as a whole, shifting to the left or right, or going straight ahead, or reversing with a quick wheeling motion; or sometimes in platoons which run in all manner of flank and oblique movements, but with heads well up and all in line and orderly array that would charm a drill sergeant. Unless pressed too closely they rarely take wing though a few of the birds may flutter upon stones for a better inspection of the intruder and some of the rear guard may fly over the head of the main column. But when you come too near there is a roar of wings that often rivals the distant thunder and the whole flock is in air in a myriad lines of curling, twisting, darting and chirping blue.

At about one hundred and fifty yards and often less the flock alights with every leg in rapid motion the instant it touches earth. If you are not expeditious there will be nothing within a hundred yards of that spot by the time you arrive and if you are a trifle too slow the whole hunt begins again anew. In this way a flock may lead the tyro up hill and down dale for miles without giving him a shot that will bag anything. But when chased up rapidly and flushed two or three times as soon as they can alight, with a few shots fired over their heads to scare them, the solid ranks suddenly break and scatter over several acres of ground. In this many lie as closely as Bob White ever lies, depending on the amount and quality of the ground cover, while many more rise at five, ten, fifteen or twenty yards and upward from so many unsuspected places and in such varied twists that most of them call for the very highest skill with the gun. Many more rise far out of shot while others steal away on silent foot and still others lie so that you can almost tread on them. For the latter a good dog is needed but the others are liable to spoil him unless great care be taken to keep him in order in their riotous presence. In this way bags of two hundred and fifty to a gun, with many more crippled and lost by their speed of foot, were not uncommon without a dog fifteen years ago, with almost a certainty of a hundred and fifty. But this was only for the expert and nothing was more amazing to the tyro than the few feathers he would at first get out of the largest flock. And many an expert from the East, who had not learned the ways of this quail, was equally amazed when he found the weight of his game far less than that of the ammunition he had shot away. For the first day or two he was quite likely to return from the field with pockets equally empty of both ammunition and game.

But persecution has made this quail far more puzzling even to the best expert. Few are the birds to-day that do not run or fly before you are within one hundred yards. We used to think persecution would make them lie better. But it has been the reverse, though their tendency to lie is still the only hope of the sportsman. To-day they travel on the wing for hundreds of yards, even crossing deep and broad canons, whereas fifteen years ago they rarely took to wing unless going to or from roost. Once it was almost a certainty that the largest flock would alight within two hundred yards and

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if it flew over a ridge the chances were many to one that it touched ground soon after passing the crest. Now the flight is twice or thrice and often several times as long. And if they go over a ridge the great puzzle is to know before it is too late on what part of the slope over the next ravine they alighted or whether they went clear over the second crest; or whether they went up or down the ravine, which they never used to do. And if you do not quickly settle these points the whole flock will again be together and under such full leg power that the hunt begins all over again.

Formerly they were easily found by their assembling call which they kept always going at such a rate that it would generally enable you to locate any flock within a quarter of a mile or more. But now they have learned the use of silence. And they know how to keep still before you come as well as after. And instead of large, noisy flocks in the valleys they are now in smaller bands high up the hillsides and more out of sight in the brush. Every rise of the flock is now apt to be out of shot and it is only at the single ones that one can point the gun with any hope while the rise of these is more than double what it was. Instead of a great roaring blue cloud you see more often only a string of dark dots stretching over some towering ridge from which the sound of wings is barely audible in the distance.

When a flock first touched ground from a flight you were once quite certain to get a shot if you were there soon enough. Now it is generally impossible to reach that spot in time or the next or even the next place. On the place where a big flock first alighted after scattering one could once find many birds still lying closely an hour or more after chasing the rest in different directions. But to-day it is quite a waste of time to tramp over old spots though in a few places they still lie well in good cover. The average rise both of the flock and of single birds has also greatly increased. Only last August 20th, 1901, while hunting deer on the Santa Monica Mountains, some thirty miles from Los Angeles, California, I saw thousands of quail many of which were not yet full grown. None trotted along the trail ahead of me as in the olden time but all rose wild, and made long flights whether I was on foot or horseback. Instead of two hundred or over, the best experts are now content with thirty or forty, while fifty is a big bag even where birds are the most plenty. And nearly all are ready now to concede, what I claimed twenty years ago, that twenty-five quail in a day afford all the sport, exercise of skill and recreation that any reasonable person should desire.

Once good shooting could be had without a dog because the flocks were so noisy one could locate them by the ear more quickly than the dog could by scent. But now a dog is almost a necessity on most grounds, to find the birds in the first place as well as to keep track of them after rising. And he must be a marvel of speed and endurance, a salamander in heat and dry air, a paragon of patience and obedience or the wily game will give him the slip and leave him too hot and breathless to be of use for some time. And he must be an equal marvel of good sense, and his master still more so, or the excitement will be too much for him. California is breeding dogs equal to the emergency but it is no easy matter to cultivate the high speed and endurance necessary and at the same time restrain the carelessness such a pace is sure to cause. When you consider that the finest eastern dog is nowhere in this race, or if he is, is liable to be worthless in a short time, you can understand the task breeders and trainers have had. But the dog rises to the emergency and as the quails annually learn more about the range of a gun and the speed of man, so the dog learns to go faster without flushing them and how to crowd them without passing the danger line, until the contest of brute against brute is now the finest exhibition on earth and enough to reward one for a long tramp with the gun left at home.

THE MOUNTAIN QUAIL

WHEN we climb the larger hills of the Pacific coast to where the perennial brooks sing down dark defiles and the columbine and the tiger lily begins to flame from deeper shades, we hear a *ch-ch-ch-ch-ch-chee-ah* from the dense green of the lilac or the bristling red of the manzanita, so plaintive yet so sweet that we are at once brought to a halt. Or along the hills around your camp you may be awak-

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ened from your morning nap by a *cloi-cloi-cloi-cloi-cloi* as silvery as ever fell from feathered throat. And it may swell again at evening-tide where the mimulus pours its fountain of gold over the old dark rocks or from the beds of fern around the little meadow where the iris blows.

When you hear the first call, which sometimes sounds more like *quit-quit-quit-quit-queee-ah*, you may see a new quail steal softly out of sight. Or he may turn to look at you with swelling breast of slate-blue tinged with the olive and brown that robe most of the back. A chestnut throat bordered with black on the sides, and that again with white, dark cinnamon underneath, with sides in broad bands of black and reddish white, with two curving stripes of white along the sides of the back, and two long slender plumes of jet nodding backward over the trim little head, the whole covering a body apparently much larger and plumper than that of Bob White, catch your eye at once. Another hops upon a stone beside him to take a better look at you, and then beside a fallen log you mark another little back of rich, olive brown, while all around little feet go rustling gently out of sight. They may seem very tame yet through all their simplicity runs an undertone of caution, and before you know it a dozen or more birds have completed a close inspection of you and vanished as softly as the shadows of the oaks in the falling of night. They act as if they would like to trust you if the cowardly little legs were not so weak. Yet they allow the legs to furnish the logic of the occasion, and the artless trust they have for a moment reposed in you suddenly seems the sublimity of art.

Thus acted once the mountain quail, and so he still acts in those sections where he has not yet learned the duplicity of man. But in most cases he has learned in the school of experience a very different style of art. And there are few scholars more apt in learning about modern guns and powders; the scratching of tenderfoot leggings against the stiff arms of the wild cherry will now start up a silent leg energy that will leave one wondering if such a thing as the mountain quail ever really existed.

This quail can live at or near sea-level apparently as well as the valley quail. But it loves the wooded glens and singing brooks of the higher ranges, and is at home from where the timber begins to cast enough shade, at about three thousand feet to far away up the slopes where the gray squirrel whisks his bushy tail no more; where the lavender of the band-tailed pigeon is seen only as it drifts over the deep blue of the cañon far below, and where the coyote, the fox and the wild cat bring no more anxiety. Though sometimes seen where the arcades of alder that arch over the hissing brook run out into lowland willows, it is, in the southern part of California, a bird of the high mountains. On the great San Pedro Martir of Lower California (Mexico) it is found where stupendous boulders, piled into cathedral towers, almost hide the giant sugar pines that struggle through the rifts between them. But I never saw it below the mountain's top, or in the first few hundred feet of the mighty gulches that plunge abruptly down. As, however, we approach the northern line of California, where the rainfall is greater and the timber runs much nearer sea level, it becomes more of a lowland bird, until, in Oregon, it may almost be called the common quail of the country; for it runs out into the edges of the valleys and in the thickets adjoining meets the valley quail which there is fast becoming more scarce.

Like the valley quail, the mountain quail is easily tamed, and might be utilized in those parts of the East where the winter snows are too much for Bob White.

With plenty of room it might be induced to breed in captivity. Where I lived in 1878, there were two that ran with the chickens and went into the same coop with them every night. They were so tame that I could almost pick them up and with the same effort they could probably have been made as tame as any chicken. For many months after being brought from their wilder home they stayed about the place with no restraint, but as both were males the question of breeding could not be determined. Finally one disappeared and after looking lonely and sad for a few weeks the other disappeared. As chickens were vanishing in the meantime, via the fox, coyote and wildcat, there is no reason to believe that the quails left because weary of captivity.

It is commonly said that this quail is of fine flavor. It is dry and insipid compared to Bob White.

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The mountain quail cannot be classed among the birds that are regularly hunted like the valley quail. Its pursuit is more accidental as it is rarely plenty enough to justify a special trip. Though it breeds in the same numbers as the valley quail and apparently has fewer enemies, it is scarce compared with it, while it is so wild and slippery in most places that it should be very plenty to give much of a bag. The only places where I have seen it plenty enough are in the wild and almost inaccessible parts of the coast range of Oregon that appear on the map as unsurveyed. Why it should be so I cannot imagine; for the conditions are the same in many other places as to food, etc., while it is nowhere in that country kept down by the gun. But I have there seen dozens of bevies in a morning's hunt for elk, with every indication that in the salal and ferns they would lie well to a dog. I believe a bag of fifty a day could easily be made there, in places, though I did not try to shoot any. In most places a bag of a dozen would be good and ordinarily they would bother a dog far worse than the valley quail or his desert relative. It does not unite in large packs like the other two quails, so that you lack the numbers, which, in case of the others, make up for the running away of so many. You must generally hunt a single bevy, or, at most, two or three together. The greater part of its range lacks the ground cover that allows the other quails to hide well, and everywhere he wears legs that forget none of their cunning. Though not quite so swift of foot as the Arizona quail, the mountain quail knows even better where to run to and generally inhabits ground where he can utilize to the best this information. There is no finer judge of uphill and if you are laden with "walking shoes" and other fashionable toggery he seems perfectly aware of it, and will give you the fullest opportunity to get your money's worth of bliss out of them, especially if the day is hot. He seems to know, too, that you boast a gun that will clear the brush and bag the game at the same discharge, and he appears to be curious how it will work. No other bird tempts Providence so much, and no other is better able to do it. He lingers just enough to lead you on and runs just enough to induce the tenderfoot to tear up with a charge of shot the exact spot he has just vacated. He flies just far enough in the open to make the ordinary shot believe he can get him and then dodges around some dense brush just quickly enough to show him that he cannot. And he deceives the best brush shot with the idea that he is going to lie close enough for a good snapshot in the thickest part of the brush when he is scudding out of sight up hill as fast as his legs can carry him. He flies no faster than Bob White, and twists no more, yet he is a far harder bird to bag on account of his rising farther off, and from unexpected places. From this and the extra toughness of all these quail arises the belief that they are faster fliers and harder to hit than Bob White, which is not true. If Bob rose the same and without being pointed by a dog he would be just as hard, except that the duller color of these birds, in some kinds of cover, makes a little difference. So with the size. "It is much larger than Bob White," says Dr. Coues. But its tail is nearly an inch longer, and the wings nearly as much longer, while it is fuller feathered about the body. When picked the difference is more apparent than real.

There is but one way to get good shooting out of this bird, and that is to scare and scatter it as quickly as possible, the same as with the valley quail. Many will often lie well enough, then, to give you some chance which must be quickly taken. But others will run in spite of all you can do and are hard enough to hit on the ground when dodging about. By the time you have hazed them enough to make them lie well you are almost in the same condition, unless dressed in a manner that allows high speed. The way they can run up hill, hopping and fluttering from rock to rock, and making you believe they are not moving rapidly, while you are scrambling breathless up from below, and all the time just out of shot, is very puzzling. And about the time you think you have driven them to the top of some ridge with nothing but down hill on the other side, the way they fool you by being not there when you arrive is one of the most interesting features of life behind the gun.

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SHOOTING THE JACKSNIPE

ON THE MARSHES

By Reginald H. Johnson

WHEN the meadow larks, the robins, the blackbirds, and the killdees meet together in the meadows for their southern migration then is the time for the sportsman to keep an eye open for the coming of the jacksnipe on the marshes, for he appears often as suddenly as a summer storm. He is like the wind, and we know not whence he comes nor whither he goes. One does not realize that the summer is waning until, perchance, there arrives out of the north a wind breathing of ice and snow, that overcasts the sky, and scatters a few flakes on the air. Then comes a night of frost, and the morning dawns bright and cold and crisp—and the autumn has in truth begun.

If you venture out on the marshes, still white here and there with rime, you may be pretty sure to find jacksnipe sunning himself along the muddy bank of some marsh brook or ditch. He looks fat and lazy now, and hardly seems to be the shy, swift, wild bird of early spring that was scarcely ever at rest, mounting high in air and dropping to earth again, or darting over the pools with marvelous speed. But he has been well-fed, the marshes are full of cover, and he seems to enjoy the warm rays of the sun as he lazily flies from one bunch of weeds or grassy tussocks to another, without showing much alarm at our approach.

All the delicious dreamy days of Indian summer he haunts the same marshes and boggy pastures where he finds the food in the rich black mud between the hummocks. It is then that he most readily falls a prey to the gunner, and it is then that he is most highly prized by the epicure.

At length, however, the frost begins to take things in its icy grip; the ground is frozen in the open fields; the reeds and rushes are brown and brittle, and the sedge shivers in the wind. So the long-billed bird is driven to move on, or find a scanty subsistence in the soft mud around the perennial springs which ooze through the bogs, or along the edge of the swiftly flowing brook. He now feels the sharp spur of the frost and the exhilarating tonic of the cold. He becomes more active and wilder, and, when the persistent gunner stumbles upon him in some sheltered spot of the windy pasture, away he springs and hurtles through the air like a bolt from a cross-bow. Until the gloomy days of early winter set a seal on the barren earth the last jacksnipe delays his southerly flight and lingers in the northern marshes.

For the jacksnipe is the true bird of the marsh. His colors of brown and gray and black, and the slender bill and legs so correspond to the sedge and weed, the grass and black muck of the marsh, that it is frequent experience to lose a dead bird, even when carefully marked down. Besides the jacksnipe needs the wide sweep of the open country for the free play of his bold, swift, eccentric flight. His is not the tuneful note of the birds of meadow and wood, but the wild, harsh, vibrant cry of the marsh grass billowing under the autumn wind.

What a unique and picturesque feature of the landscape is the marsh! Here first in spring the grass appears lush and green. Here the snipe and the plover, the bobolink and the meadow lark begin their courtships. Here the tribes of birds make the air ring as they gather from far and wide for their migrations. At no season of the year, not even when the cardinal flower and the hundreds of other summer flowers gleam amidst the green grass, is the marsh more beautiful than in the fall. Over the wide stretch of the open country the dense blue dome of the sky seems to pour, as from an inverted cup, an ambrosial air that spreads abroad to the far-off hills. All things seem to float in a soft, hazy, liquid light—the wide fields of marsh hay, the sluggish bridge-spanned brook with its fringe of willows and swaying rushes, the pastures dotted with slow-moving cattle, the clumps of trees and scattered oaks transformed into bowers of amethyst, and the gray-gabled

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houses and red barns of the distant farmsteads. What wonders the frost works in the foliage—especially in those great oaks in the pastures, and the elms on the borders of the meadows. The dark wine color and browns of the oaks mingle with the colors of the marsh, but form a wondrous contrast to the turquoise of the sky; while the yellow foliage of the tall elms waves against the heavens in feathery fronds.

The sport of snipe shooting is enjoyed wherever the bird is found—and he is found from the British Isles to the Philippines. He is, on first acquaintance, a rather difficult bird to get at, and more difficult to bring down. But those who are familiar with his habits of resort and of flight have little difficulty in finding him in plenty in season. His favorite haunts are in the marshes of the lake country of the Northwest, in the bottoms along the Mississippi River and its affluents throughout the Middle West, and along the sea coast in the East. There are a few simple rules that govern most snipe shooters. Always hunt down the wind is one of them. As the jack when rising flies into the wind, good quartering shots are thus presented. Another rule is to get in your first barrel as soon as possible after the bird springs up; then, if you miss, wait till he settles in his flight somewhat, before giving him your left.

Wear light clothing and light rubber boots, as walking through the bogs of a marsh is heavy work. A good retriever is an excellent companion. Go out on the marsh on a bright day after the first sharp frost, take plenty of shells with you, and if the snipe keep their appointment, you will have a day's sport hard to match anywhere.

ON THE GULF COAST

By Fred Badger

THE Wilson's snipe, called jacksnipe in the South and West, furnishes, all things considered, about as satisfactory sport as any of our beloved game birds, once we learn his little peculiarities. We find him out in the open, where no brush impedes the view as is so apt to be the case in woodcock or ruffed grouse shooting, a dog is not necessary to his successful pursuit, and he gives us a fair shot as he utters his defiant little cry and scurries off. (Sometimes it seems to have a derisive ring, to the fellow who has tried in vain to stop him.) True, the walking is generally not of the best in spots of his choosing, and the man who brings in a good bag has well earned it by patient tramping and careful shooting. Then on the table, certainly, he compares well with the best, what there is of him. Fastidious and dainty, he insists on having his feeding grounds just of the right degree of wetness, so that no man can say there will be a single snipe to-morrow in a marsh where there are hundreds to-day. An inch of water too much will cause every bird to pick up and leave, to return only when the ground is drier. The jacksnipe's faculty of concealing himself in the scantiest cover evidently gave him the name he bears among the Louisiana Creoles—"*Cache-cache*" (Hide and seek). They generally fall back uppermost. The method I adopt is to get my eye on some object, generally some prominent tuft of grass, just in line with the spot where the bird has fallen, to walk in that direction without taking my eye from the mark, and to drop my hat on the spot where I judge the bird to have fallen, and then search in circles with the hat as a center. It is curious how closely one can mark them down, even at considerable distances, by watching for a landmark the instant the bird is seen to drop. Several times I have dropped my hat on what seemed to be the right spot, and after a long search found the snipe in the grass directly under the hat. More than once I have had a bird fly off a quarter of a mile or more, then seen it drop with wings relaxed and pointing upward—a sure sign of a dead bird—and by carefully taking my bearings picked up the bird.

Probably the best snipe shooting in the United States is to be had in the low country bordering the Gulf of Mexico in the States of Louisiana and Texas. Here they are not always found in extremely boggy ground as is apt to be the case in the North, but often on burnt prairie, which seems to have an especial fascination for the snipe, and often

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unparalleled sport may be indulged in without the discomfort of wallowing through mud. Still the best flight of snipe it was ever my good fortune to get amongst was in very soft black mud in a spot near the mouth of the Trinity River, Texas. This place was frequented by swine and they had so thoroughly rooted the ground over in search of grass roots that a person sank at each step certainly from four to eight inches. This made it killing work for walking, but the snipe were there in thousands. A bayou, or old course of the river, ran right up to the snipe ground, and up this we sailed the boat we made our winter home. It was night long before we approached the hunting grounds—one of those glorious mild southern moonlight nights, almost calm, but with breeze enough to move us steadily along between the dark banks, our only care to keep in sight the sail of another hunting boat that we had engaged to show us the way. Not a sound was to be heard except the occasional hoot of a big owl, or the quack of a mallard disturbed by our passage, until we reached our objective point. Here, as we anchored the boats and made all snug for the night, we could hear the cries of the snipe moving around overhead, and it pleased me more than ever did the thunderous wings of the great flocks of ducks we sometimes ran into at night, or the clamors of geese disturbed on their roosting grounds. When we went after the snipe in the morning we found them wild, rising at from thirty to fifty yards, and we had to shoot straight and quick for all we got. And we found that a two-hour stretch without a rest was enough in that deep mud, so the slaughter was not great.

Another time I found my snipe on easier ground and was able to combine snipe and duck shooting on the same spot. This time I was cruising alone, for which I have a great liking, and had anchored my boat opposite some ponds where sprigs (pintail) and other shoal water ducks were wont to resort for fresh water, their feeding grounds being in the salty waters of the gulf. By carrying a few hollow decoys over to the ponds, I could get an occasional shot at the ducks as they came in, and I was sitting there in a little blind which I had made by digging up clumps of prairie grass with a butcher knife, when I heard some snipe pitching in near the ponds. I put some No. 10 shells in my gun and left the senseless wooden ducks to bob unheeded on the water while I went after more interesting game than water fowl. I found that on some wet spots bordering on my ponds a very nice little flight of snipe was in, and as the walking was not bad I stuck right to them as long as they lasted, even though I could see flocks of ducks circling over my decoys now and again, two or three hundred yards away. Three days I combined snipe and duck shooting, securing ninety-six snipe besides a fair bag of ducks, when a rain came and drowned the snipe out, and they left in search of higher ground. As the rain gave the ducks fresh water everywhere on the surface of the prairie, it stopped their flight to these particular ponds, and spoiled my fun; so I lugged my decoys aboard again, got up the mud-hook, and sailed away in search of new hunting grounds. What pleasanter life is there than this to one who loves hunting? Think of leaving all care behind you, as well as the rigors of the northern winter, and drifting idly about, if the wind be light, or driving close-reefed when the fierce "Norther" blows, passing the happy days in a land where quantities of migratory game birds spend the entire winter season, even in these latter days of multiplying guns and hunters. The resident market hunter of the Gulf coast will tell you the game is "mighty scarce" to what it used to be, but that simply means that there are hundreds now where once were thousands, and there is plenty of game yet to satisfy a reasonable man. With all our belongings stowed in a roomy old tub of a cat-boat, plenty of ammunition, food, water, ice, and gasoline to cook with, not forgetting reading matter for times when Diana is not propitious, my hunting partner and I have spent many pleasant months cruising in these waters, and in fair weather or foul, we love the Gulf coast country and the vagabond life of the hunter. Canada geese, snow geese, canvasbacks, redheads, mallards, widgeon, pintail, gadwall, shovellers, teal, and some quail combine to make the region attractive but better than all to my mind is the possibility ever present of finding that a nice bunch of snipe has appeared upon the fresh or brackish marshes offering most fascinating sport to him who can tramp and shoot.

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A BOY GOES FISHING

By Lynn Roby Meekins

A QUEER thing about human nature after it has reached the age of discretion is it proneness to get itself into trouble by exaggerating the joys and events of youth. With woman this takes the form of educating the little girls in the extravagance of dress through the medium of dolls. With man it is fishing.

"Oh, yes, my son, at your age I was a great fisherman. I liked nothing better than to get down the old pole and with my old tin can full of worms toddle to the mill pond and catch perch—beautiful sun perch by the dozen," you say.

"A whole dozen, papa?" he asks.

"Yes, indeed, sometimes two or three dozen, so many once or twice that I couldn't carry them all home. It was great sport, I assure you."

"How do you catch fish?"

"There are many ways, but the way for big boys like you and me is with the hook and line and a nice long pole. The hook is the thing that really catches but we need a line and pole to get in our prizes. Now this hook is older than any of your histories—older than most of the tribes you read about in your Bible. Even the savage people have hooks. The Indians had them, only they were pieces of bone so bent that they would hold the fish when he bit the bait. Then a long time afterward people began to make use of iron, and then a long time after that they put a barb on the end, and that made it easier to hold the fish. And so they have been coming along and improving until some of the hooks have several barbs and in my day we used as many as three hooks on the same line, so that three fish could bite at once."

"And you caught three real fish all at one time?"

"Often." (When the parent begin to tell a fish story Truth takes a vacation.) "Often, my son. It's the easiest thing in the world. They bite, you give a big pull, and there are your fish. And down goes your line and——"

"You catch three more right away with one big pull."

"Well, not always. Sometimes you only get two."

And thus you go on until within the short space of an hour you store up more trouble than you will be able to get rid of within the next ten years. Within five minutes after the session is over the young person has found a tin can. In less than thirty minutes he has it well populated with angle worms. And inside the second hour he has drawn on the week's market money for at least fifty cents' worth of tackle. And your doom is irrevocably sealed. The tragedy begins just about one-fifth of a second after the first intimation of daybreak. The parent has just settled down upon the homestretch of that morning sleep, which is worth more in happiness than a year of Standard Oil dividends. Groans are as useless as palm leaf fans in a Kansas cyclone. Supplication is as vain as imprecation. The adult perjurer simply has to awake to the consciousness of his sin and the realization of his misery. The little voice is loud and joyous.

"Fishing to-day! Fishing to-day! All aboard for Fish Creek," it cries, and the parent crawls out of bed saying things that would never pass for prayers. He finds that the young person has already got the kitchen going and that the day has been ushered in some three hours ahead of the regular schedule. After that experiences vary, but Truth comes back from its vacation and shakes its sober sides in merciless mirth.

It is never proper to say that you take your boy fishing, because it isn't so. He goes himself and you follow along to carry things and do the work.

On his first trip this boy took me fishing along a mill-race in Maryland. It was a gentle stream whose size was in inverse ratio to the boy's expectations. Of course he had the three hooks and of course he got them entangled in tree roots within a minute after they had touched the water. He pulled and at once guessed he had caught three whales. It took as long to convince him that he must not expect too much at first as it did to dislodge the hooks. Then more efforts were made.

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"Where are the fish?" (Pause.)

"Why don't they bite?" (Pause.)

"I guess they don't like worms." (Pause.)

"Papa, did you put the bait on right?" (No pause here.) He pulled up the line and found the bait all gone. Then he began to abuse the fish for having stolen it and I felt glad to have the condemnation turned. But it was not for long. Fragments of those youthful stories drifted back upon a tide of incredulity. Then it was gently intimated to the fisherman that if he talked so much the fish would not bite. This brought forth the quick response, "Then what am I to do? Sit here all the time and say nothing?"

"You must be patient."

"You try and show me how you catch three at one time."

"No," I replied, as kindly as I could, "I want you to have all the sport. Keep on and maybe you'll get something soon."

I walked away and used the two handkerchiefs to mop the perspiration that was due to moral as to well as physical causes. A man never feels quite so small as when his exaggerations come home to roost, and he trembles at his own guilt when he beholds the confidence of his offspring in parental infallibility fading swiftly away. But fate is sometimes kind even to those who deserve its hardest kicks, and just as the outlook seemed absolutely hopeless there came a cry of joy which no language can describe, which no rhapsody can express—the clear, glad exultation of the boy who has just caught his first fish.

Gone were all disappointments, forgotten were all cares, forgiven were all wrongs—there was the fish squirming and dangling at the end of the line and he had caught it—caught it himself without anybody's help!

Well, we got three more, poor little things that were not worth carrying home as far as food was concerned, but more valuable than their weight in diamonds when estimated by the pride of the boy and the relief of the parent who followed after, carrying everything except the fish. And then the happy welcome home, with the anxious mother standing on the veranda watching and waiting. Of course she had expected us both to be drowned—in three feet of water—and she had to hug the boy a dozen times to realize that he had actually escaped a watery grave. And the fish! They were the finest she ever saw in all her life, and she knew that his father had never caught any half so beautiful.

The next time the boy took me was not fishing but crabbing, and in order to make the experience more interesting he also took his cousin, about his own age. They had one net between them and all of us had to stand on a narrow little platform built out into the water. I set the lines and did the hauling. Lying on their little stomachs both tried to use the net at the same time, which ended in the escape of the crabs, and incessantly threatened to send them both into the water. If you want to make record time in acquiring nervous prostration try to handle two small boys and two crab lines at the same time on a narrow platform. Finally we did manage to catch a few, but not until one boy was anchored at a safe distance while the other boy ran the net. By taking turns the difficulty was arbitrated, and we got back home to the hotel alive.

But crabbing is not fishing, and so a few weeks later when we went down to the Inlet at Atlantic City and saw many lines out there was nothing to do but to hire tackle and bait. And as good fortune had it the boy caught something, one good fish worth carrying to the hotel. The bill was, carfare, 20 cents; line and bait, 25; fee to waiter for getting fish cooked, 50; memorandum book and pencil for boy to write about the great event, 15—total for one fish, $1.10. But it was worth it. Oh, it *was* worth it!

Late in the summer we were staying at a place on the Mohegan Bluffs, Block Island, and not far from the house were the fresh water ponds which are the mysteries of that bit of land in the waste of the salt waters. These ponds are well filled with small fish. It was here that the three-hook story came back vividly to the boy's mind. Why cannot children forget the indiscretions of their parents?

Well, anyhow, there was another daybreak agony, and we arrived at the shores of the pond with crude paraphernalia and much perspiration, for the morning was the hottest of the year. The only boat that could be hired was so cumbrous and heavy that one could scarcely move it with the Bay of Fundy's tide to help him. Of course the best fishing place was across the way in the far corner. It always is on a warm day and this particular morning was sizzling. At last we got there and anchored. Then of course the tub did its best to move

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Here is another problem of the inherent viciousness of inanimate things: why does a boat that won't move when you want it to move always move after you anchor it?

But neither science nor philosophy belong to a boy's fishing trip.

"I think we'll get some of them here," he said, confidently. "Now, papa, you take your line and show me how you used to do when you caught three at a time."

I took it feeling all the guilt that was within me and prepared to meet my doom. But once more fate was kind. The boy got a bite and lifted his fish. It fell from his hook but the one sign of life had awakened the enthusiasm that had been born into him. I improved the respite and presently told him that I would help by baiting his hooks and taking off his catch.

Then the punishment followed, for the boy struck a convention of catfish and hauled them in so fast that my hands began to look as if they were engaged in the butchery business. Fate was meting out my punishment through the murderous fins of that nuisance of the waters. But the boy was satisfied and when he varied the programme with an occasional perch, earth had no greater happiness and the scorching rays of the sun did not bother him.

Just why sport keeps a boy cool in summer and warm in winter is another problem, but if the solution of it is as hard as was the rowing and poling and pushing of that old scow around that hot pond for two mortal hours I advise no one to tackle it. Oh, it was hot, horribly, unanimously, excruciatingly hot, but that boy was as cool as a cucumber in a June frost, and he insisted on going and going and catching and catching until we had circumnavigated the inland sea three times.

Every blessed fish had to be strung on willow switches and carried until we came in sight of the house. Then the young person taking all of them, labored to the door, and the parent followed in time to hear the fond mother say it was a shame to make that poor little fellow carry all those fish on such a hot day.

Now we are in the uplands of Pennsylvania. Emptying into the Schuylkill are frequent streams and in a few of them is good fishing. Some distance from our little inn, which is well up on the mountain side, is a mill pond. I heard of it but guarded the information from the boy. But what was the use? He made friends with the man-of-all-work—a German—and found out more than I ever expect to know.

"Fishing?" said the German, "why that pond's full of 'em. My, my, my, if you wants fish, you goes right up there, and you puts down your line and up they come, one, two, three—a dozen maybe."

In a few minutes the boy was spoiling a new suit of clothes in a merry chase of fishing worms. He borrowed the German's lines and ordered me to be ready to start at his appointed hour. We went. We plowed the dust of the turnpike. We got lost in lanes. We jumped muddy streams. Finally we reached a bowl of blackness that looked like pitch and a man with a queer smile told us that the big rock was the place from which to fish. We camped upon it and put out our lines. The day waxed and began to wane. The boy expressed various sentiments about things and renewed inquiries about the three fish on the three hooks. Finally an old man came along, and we asked him about the fishing.

"No fish here since the dye-mill started," he said, as he kept on.

When we told it to the hotel man he was deeply interested.

"No fish! Vell, don't you know I never was there, but I thought fish ought to be where water was. Vell, vell, vell! It's very strange."

This is a beautiful morning of the day after, but we have recovered and at last we have reached a quiet spot where the fishing may rest and where I may find some peace from the fates that have been pursuing a repentant transgressor. See the lovely sky; listen to the music of the birds and—

What's that?

"It's all right, papa, we struck the wrong pond. The place where the fish are is four miles across the mountain. It isn't much of a walk, when there's such good fun ahead. Here get on your old shoes and be ready in ten minutes. I'll be down stairs."

It is fate. Due notice will be given to all relatives and friends. Please omit flowers

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WILD FOWL SHOOTING

By J. Day Knap

THE season in which this sport may be enjoyed begins with the autumn months, and because of the misguided laws of some states, may be continued until May first. To the true sportsman, however, it ends with the southward flight of the wild fowl—as no one deserving the name will molest the birds on their return in the spring.

Duck shooting in the early fall is chiefly confined to fresh water marshes and to the creeks filled with lily pads, where the blue-wing teal, the beautiful wood duck, and the crafty black duck are to be found at this time. The last two varieties breed in most of our northern states, and the young birds are often seen during the summer months.

Blue-wing teal start on their southern pilgrimage as early as the first of September and afford good sport during that month. There will, undoubtedly, be more birds later, but he who loves not blustering weather will find fair sport with the early arrivals.

Let us take for example a day spent on one of our larger rivers the latter part of September. There are numerous little creeks leading back into the country filled with grass and other aquatic plants that offer tempting food and a quiet retreat for wood duck. There are flats of wild rice bordering the river where the black duck feed at night, and to which they often return during the day; and then there is a broad shallow bay, covered at low tide with eel grass, where both teal and black duck love to sit in the sun, preening themselves, or picking up snails in the shallow water.

With such hunting grounds and with the proper kind of boat, one may practise many different methods of shooting, and also become familiar with the little eccentricities and habits of the ducks.

Your boat should be a small one, about fourteen feet long, fairly beamy, but not flat-bottomed, and painted a dull green so as to be inconspicuous. A little flat cedar, in the way of a blind may be put on the bow just high enough to screen your movements when sitting low on the flooring. A paddle about three and a half feet long will be used when you are in this position, and a nine foot one when you wish to shove about through the wild rice.

Making an early start, about daylight, you paddle down to the first creek, sitting comfortably on the stern deck. Your guns being ready (two are better than one, as it is sometimes necessary to shoot quickly to secure a cripple), you seat yourself on the bottom of the boat and paddle quietly up the creek, keeping a sharp lookout as you turn each bend, and, if you are of an excitable nature, starting at every sound, for the stillness is intense, and the sudden splashing of a muskrat or the cracking of a twig in the swamp sounds very loud under these conditions.

Perhaps as you swing noiselessly around a sharp bend and the creek ahead comes into view, your eye detects a movement in the grass that borders the open water, and you let your boat drift while you watch the place carefully. Then suddenly a brown head rises, then another and another, and you are just reaching for your gun, when with a roar of wings the flock rises straight into the air, and you pick your ducks carefully, shooting quickly, and perhaps get in a shot with your second gun. One duck is crippled and gets into the swamp in spite of you. In such a case, shove your boat to the place where he disappeared, jump out and run in making as much racket as possible, and then stop and listen. Nine times out of ten you will hear him flopping along ahead of you and then your task is easy.

After leaving the creek, you shove along down the river through the nodding wild rice and will, perchance, jump a bunch of black duck or teal that have lingered from the night's feeding in the thick grass; under these circumstances you will have to move and shoot quickly, as being in a standing position, you are at some distance from your gun, which should be lying on a rest at your feet.

On reaching the bay, you go ashore on some point from which a good view is obtainable, and take a careful look around.

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FROM BEHIND THE BLIND.

A pair of field-glasses comes in handy here. Perhaps you discover a flock of black ducks feeding about a quarter of a mile away. You get into your boat, sitting low, and paddle towards them. Go slowly and keep your boat from rolling or moving from side to side. When within a hundred yards or so from the flock, one old fellow may raise his head and look. The others will stop feeding and also look, sitting perfectly still. Stop your boat and don't move a hair; the slightest motion at this critical period, when the whole flock is trying to make out whether this dark bunch is dangerous or not, will spoil your chances and send the ducks off. After some minutes, perhaps, they begin feeding again, evidently being satisfied that you are harmless. Now go carefully ahead and as you approach within range watch them closely, so that you may have time to get hold of your gun when they jump. Now they all see you and will go in a second. See how they stretch their necks and turn from side to side, uncertain what to do. There they go! All together, and you have a fine chance to show your skill. This is a trying position, as you are cramped from sitting still in a small place, and if you make a good shot, so much the more credit. Of course if you can have a guide to paddle you, the shooting is much easier.

Now go over to that bunch of rushes and throw out your decoys. A dozen are enough at this season, but they should be the best made, as black ducks are always suspicious. Cork is the best material, as the decoy sits high on the water and does not roll about too much, as most cedar or hollow ones do. String them out about thirty yards from the rushes, then push your boat in, and lie low. Here patience is required, but as the scenery is beautiful, the sun bright and warm, and the air a tonic in itself, patience should come easy.

In October the southern pilgrimage of the duck family is at its hight and there should be good sport along the Atlantic seaboard as far south as the Chesapeake. Below this the shooting will be better a month later. The grandest part of the year is this, the Indian summer weather, the days of golden sunshine, the crisp, cool mornings with the white fog rising from the marshes, and hill and swamp clothed in a gorgeous garment of crimson and russet foliage. The wild rice, what there is left of it, is yellow gold, while the rushes are brown from the touch of

THE DUCK-BOAT BLIND.

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Jack Frost, while there is a tang in the air which enlivens.

Inland, on our larger rivers, mallards, pintail, widgeon and the other surface feeders should be plentiful, with a few of the divers to make things interesting. A good lot of decoys are necessary now—a hundred will not be found too many—as the birds are living in large flocks. Thirty or so black duck, fifty broadbill and the rest redhead and canvasback will make a good showing. Of course, this proportion may be varied in different localities. If there are many redheads about, a few Canada goose stool will be good, as the latter variety of duck seem to enjoy the company of the wily honkers and come to decoys better when a few of them are among the number.

When gunning for black duck, mallards or pintail be sure that you are well hidden, as all three of these varieties are suspicious and ever on the lookout for danger. The last-named especially, is, I think, the craftiest of all the duck family, and decoys and blind must be perfect to deceive this slim and wily fellow. Widgeon and teal come to stool readily, while broadbill, redheads and canvasbacks require little concealment on the hunter's part provided he keep still. In fact the art of remaining perfectly quiet when the ducks are approaching is one that must be practised by the successful sportsman, as the slightest movement by him will often spoil a good chance. A good duck-call is of the greatest assistance in decoy shooting, and the human voice when properly used can produce a better imitation than any artificial contrivance. Comparatively few sportsmen, however, can call a duck in this manner and the manufactured squawker is only a little better than nothing. Most guides can imitate the duck language and it is wonderful how expert some of them become.

Don't try to shoot over decoys alone, for various reasons. One of the greatest is that it is extremely cold work picking up a large set of stool, and a man must be used to it to do it successfully. Have a good guide, a local one who knows where the birds are living, and who makes it his business to keep posted in regard to the best points, etc.

Don't try to kill all the ducks in the locality in one day. You can't do it for one thing, and you may gain a reputation that will not be savory. No sportsman brags of the number of birds he has killed, but values a small bag made under difficulties far more than a large one that required little effort. Always watch your guide's methods and familiarize yourself with them, but don't try to give him an idea that you know more than he does. If you really do, which is not likely, it won't make him feel or work any better, and will most likely lower you in his estimation.

In our northern states by the end of November, wild fowl are scarce and the sportsman who is looking for duck shooting must follow the birds into more southerly climes. The bleak winds and snow flurries have driven most of the duck family before them, and the waters of the Chesapeake and its tributaries, and the bayous of the Carolinas, will be found swarming with wild fowl of every variety from the stately swan to the fat little butterball.

Here, however, will also be found, as everywhere else, the sportsman in search of good shooting, the market hunter in search of shekels, and the game-hog looking for newspaper notoriety, and counting the number of the slain.

Let us try to forget these last two types for the present and deal only with the sportsman true and his legitimate methods.

On the Chesapeake and upon the waters of the many rivers that flow into it, the sink-box or battery is widely used and although well-known to most duck shooters is worthy of a brief description. It consists of a light platform made of wood and canvas, about twelve feet long by seven feet wide, in the center of which is placed a coffin-like box just large enough for the hunter to lie at full length. The top of this box is flush with the deck or platform, and, when the machine is floating on the water and the hunter lying on his back, nothing is visible to the low flying ducks. The battery is nearly surrounded by a large flock of decoys, often as many as two hundred and fifty being used. Canvasback, redhead, broadbill and other divers come readily to this device, but the habit of high flying indulged in by black duck, mallard and pintail, give them a good view of the prostrate gunner, and generally, one look is enough.

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Blinds made of cedar bushes stuck in the mud in shallow water are also used with good results. On the Virginia Broadwater hundreds of these blinds are so placed and the birds become used to them and readily approach, when the presence of a flock of decoys leads them to believe that some of their own number are feeding there. This locality is especially attractive to sportsmen as brant are very plenty and goose shooting good under proper weather conditions. Black duck far outnumber other varieties, while redheads and canvasbacks are almost unknown there. This latter fact is due to the absence of wild celery which is so abundant on the flats of the Chesapeake, only a few miles away. When shooting on the Broadwater have at least one friend with you, for here the conditions are such that you will only be able to spend about half of each day in the blinds and the rest of the time will hang rather heavily on your hands without someone congenial to talk to. To have a satisfactory experience of the shooting in this locality you should give at least a week to it, and the most comfortable way is for you and your companion to engage the services of two local guides who own a sloop and live on board. These boats are not uncomfortable, and if the cook is a good one you will enjoy yourselves. Your vessel is anchored within easy reach of the best feeding grounds and should the weather be right you will have excellent shooting.

On the falling tide the birds leave the marshes and repair to the shoals where the blinds have been placed. Here having put out your decoys and pushed your flat-bottomed "sharpie" into the blind, you can stand up and shoot with great ease. It is cold work, however, as the wind has a fair chance at you; and there must be a cold wind to make good shooting. Brant come to decoys readily in such weather and are easily killed, a few shot being enough to bring them down. Geese, on the contrary, require a heavy charge of shot and plenty of powder behind it for good results. For cold and uncomfortable work, however, the battery stands unexcelled. Here there is absolutely no chance for the sportsman to move about to get his blood in circulation, and when lying down he will experience the pleasure of feeling water trickling down his neck and soaking through his clothes, for on a windy day the spray will splash into the box and make things very unpleasant. Point shooting over decoys is also practised in the Chesapeake Bay region, from blinds built along the shore, but it is not so successful a method as shooting from a battery, for the birds soon get to shun the points and keep out in open water. In Currytuck Sound, natives only are allowed to shoot from batteries and various modifications of point shooting are used by the members of the several clubs that are located here.

A very good method for goose shooting is used on the sand spits that jut out into the sound. A pit is dug about four feet deep near the water's edge, and the sportsman seats himself on a rough bench, his eyes about on a level with the sand. Live geese are used as decoys, and often very good sport is obtained. All along our coast, from Maine to Florida the wild fowl have to run a gauntlet every fall, and from Florida to Maine, what are left of them have to go through it again every spring.

Why there is a duck left, why they have not all followed the wild pigeon and the buffalo to the happy hunting grounds is only accounted for by their originally vast numbers, and by their remote breeding places. But wild fowl are decreasing annually and unless sportsmen get together and make a stand for wise legislation, duck shooting will soon be a thing of memory only.

The task is a difficult one, but thanks to several enthusiastic men, the feeling against spring shooting is fast becoming universal among thinking sportsmen, and let us hope that there will be so general an uprising of the clans that this objectionable law will be repealed in every state of the Union, and the birds allowed to go northward without molestation.

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SPORT AND SPORTSMANSHIP IN ILLINOIS

By Leonidas Hubbard, Jr.

NOT least among the sins of Chicago is her aiding and abetting of game slaughter. The influence of her commission men reaches beyond Illinois into the lakes, marshes and forests of Wisconsin and Minnesota. It penetrates the pine lands of Michigan, sends its tentacles stretching outward to the Dakota rivers and blights with its touch the old and settled country of its own State.

Central in her position, Chicago reaches sufficient game country to make the traffic profitable. Hence her commission men can afford to spend money in legislative lobbies.

Illinois itself is not a very important State from the game dealer's point of view and the commission men have conceded an apparent advantage to the sportsmen. This is the law which forbids the sale of game killed within the State. This is more an apparent than a real concession for the laws permit the traffic in such game as is killed beyond the State lines: which being the case there is little difficulty before the Illinois pot-hunter. He kills his game and sells it to an agent of some commission house who ships it to Chicago as Wisconsin or Minnesota or Missouri product.

The cold storage rooms of the city are kept filled with game of every sort from the quail to the elk. It stays there to be sold out to hotels or to men who love game dinners, or to be shipped to states where game laws are lax. Sometimes—often I am told—it goes across the ocean to grace the board of nobility.

There are sportsmen in Illinois—some thoroughbreds—but they have had to face a hard combination of commission men, pot-hunters and weak or corrupt lawmakers. Some few concessions they have obtained in the way of good laws but these are far from sufficient. Illinois game has suffered and is still suffering.

Illinois, in an earlier day, was a most attractive field for sportsmen. Like Missouri she had marsh land and rivers where wild fowl fed by millions. Like Indiana and Ohio she had hardwood forests where deer and bear ran wild, where squirrels hid and chattered and where wild turkeys led the hunter a merry chase. The land was cleared and most of the State became like its two eastern neighbors settled and game stripped. But two regions remained wild. These were along the Illinois River for the last hundred miles of its length and in that portion of the State's southwest which borders on the Mississippi.

Most of this was marsh and all was low land. Besides the marsh proper were thousands of acres of land which overflowed in spring and fall. It was too wet for cultivation, and was timbered more or less heavily with elm, black ash, soft maple, oak and hickory. Here among the timber deer lingered long after they had been exterminated upon neighboring lands. Here, too, were turkeys in some abundance until the last decade of the dead century. Here a deer or turkey may still be seen at rare intervals. Throughout the region are lakes and bayous and streams.

Ducks and other water fowl still come in numbers to these swamps and lakes. There are still squirrels in the forest and fish in the streams, but their numbers are growing rapidly less. The result has been that sportsmen, seeing the old hunting-grounds in danger, have begun to buy up and preserve the lowlands. A large number of organizations have been made for this purpose and the preserved land is now more extensive than the free.

There are some charming spots for sportsmen's clubs among the lakes and on the streams of Illinois. Squirrel shooting among the autumn leaves supplements the flight of ducks, woodcock and jacksnipe. Black bass, perch, pike and catfish fill the waters. The clubhouses vary from the deserted farmhouse to the swell building with an "annex." The sportsmanship, too, varies. But its variation is not so great as one might suppose, for, unfortunately, the evolution has not progressed so far as could be wished. The club members are law abiding, but to be law abiding is not enough. Illinois laws permit spring shooting and too many of the organizations, I am sorry to say,

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shoot to some extent after the northern flight begins.

They do not defend such conduct. Not a man did I meet who had any defense of spring bird slaughter. They merely excused themselves with the threadbare plea that everybody else shoots in the spring. What Illinois sportsmen's clubs need is what clubs need everywhere and what men, too, need: courage to take the initiative, strength and manhood to do right because it is right.

These Illinois lowlands have long had an attraction for Missouri sportsmen and St. Louis parties have made a number of preserves. One of these is worthy of study because of some of the problems it seeks to solve. This is the Buck Lake Hunting and Fishing Club. This club, whose president is Mr. Simeon T. Price, of St. Louis, has a membership of fifty and controls something over four thousand acres in the Illinois River bottoms, near Montesuma. Buck Lake, a charming body of water containing some two thousand acres forms the central feature of the preserve. From this, swampy marsh land runs away to the river, while on the farther side the land rises high and dry with a covering of maple, oak and hickory.

The lake has been sown with wild rice and thither come ducks in autumn to furnish blind and pass shooting. Varying this sport woodcock and jacksnipe stop in season on the low river-ward side while squirrels are chattering from dawn to dark upon the high ground. The club has never built a house but arranges with a farmer to care for members on their hunting trips.

Here we come to the special problem which this club is working to solve—the relationship of the sportsman to the farmer. This phase of sportsmanship has been too often ignored with the result that even the best sportsmen and the best farmers misjudge each other. But not so here. By doing away with the customary club building, and arranging for accommodation with a farmer, the club avoided an appearance of exclusiveness which cannot help but arise when a wealthy organization imports a superintendent and gamekeeper. But the movement does not stop here. The club differentiates between farmer and market-hunter, and while shutting the latter religiously from its possessions, it grants permits to neighboring farmers to shoot ducks upon the club land.

This is a decidedly good move. If the sportsman expects now and then to shoot quail on the farmer's land why should he not now and then give to the conscientious farmer a permit to kill a mess of ducks upon club grounds? The Buck Lake Club has found that the plan works well. Not only are the farmers of that vicinity worthy of the trust, but they respond so well that their assistance in policing the preserve borders has made it well-nigh impossible for the ever active pot-hunter to trespass.

At first thought one imagines the preserves over-run with agriculturists, but such is not the case. The average farmer seldom cares to go hunting, and it is only occasionally that one asks for a permit. Yet the good-will is just as strong as though the hunting were an everyday occurrence.

Near at hand is the Grand Pass Club which controls the four hundred acres of Goose Lake and a goodly share of Sandridge Lake, whose total extent runs into the thousands of acres. Not far from this is the King's Lake Club. Both have sown rice in their lakes; both have excellent shooting, and both are apt to excuse spring duck slaughter.

Not only do the sportsmen of large cities make clubs in this region, but those of every smaller town resort also to game preserving, and some of the best sportsmen are found among these. Last year Jacksonville produced the Grand Island Rod and Gun Club, whose president, Mr. James T. King, is one of the old-time sportsmen of Illinois. There are many sportsmen among the business men of Jacksonville. They have hunted on the Illinois bottoms since the days when they went as farmer boys. Of late they have seen the free land growing more and more narrow in extent and the signs of "keep off" multiplying on every hand. So last year twenty organized the above-named club. Down on the Illinois River, a few miles from the town of Bath, they chose two thousand acres of land. In its midst was Swan Lake, bordered partly by marsh and partly by wild, old forests of oak and hickory. Here, in keeping with the wilderness, they built a roomy log house, installed a superintendent and set about the improvement of duck shooting by sowing wild rice and smart grass. Here about the great log fireplace the members may gather

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together at evening to eat their supper of duck and squirrel and toothsome browned catfish, while the world and business go their unhindered way.

Along with the disappearance of game from the farm land, and the growing of preserves along the rivers, there has sprung up in Illinois a movement toward game propagation. One organization of the sort has been formed, and many other Illinois sportsmen are waiting merely to see if this proves a success before undertaking similar enterprises. The organization of which I speak is the State Game Reserve Association. The Association has headquarters in Springfield. Its membership is limited to twenty-five. Its conduct is thoroughly sportsmanlike. The annual dues of each member are $25. With the money thus raised the Association has been engaged in purchasing quail and pheasants of the English and Mongolian varieties which were planted upon a five thousand acre preserve.

The preserved land consists entirely of farms of which the Association has leased merely the hunting right. The farmers are made honorary members of the organization and assist in policing the grounds. As yet, it is impossible to say how successful such game preservation will be. The planting of quail is still in the doubtful stage, but pheasants have succeeded elsewhere, and it requires no prophet to say that they ought to do well here. One may well imagine what sport may be developed on this long-settled land if the quail multiply, and if the beautiful pheasants fill the wood lots and pasture lands. Such experiments as this cannot be too heartily encouraged. They bring about an understanding between farmer and sportsman. They suppress the small boy and the pot-hunters; and, best of all, they restore game to the fields whence it has disappeared, and bring new species to American shooting grounds.

Photo by Orlando Baxter.

GRAND ISLAND GUN CLUB CABIN.

Illinois has a number of gun clubs whose purpose is almost exclusively trap shooting. Some are composed of very good sportsmen while others are not. There are many trap-

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shooters who do not disdain market shooting. One could wish that trap shooters might evolve past the point of live pigeon killing, but these have not done so and probably will not for some time to come. But some day men will question if it is really sport to slaughter caged birds and the answer will be negative. Some stress has been brought by private citizens to prevent live bird shooting at the traps, but the effect has not been marked. In one instance, that of the Illinois Gun Club, at Springfield, the dead birds were given to charitable institutions and this politic move spiked the guns of anti-live-bird crusaders.

A most commendable awakening seems to be taking place among the gun clubs. For twenty-seven years they have been organized into the State Sportsmen's Association. It is only recently, however, that the organization has undertaken work in the way of protecting game. At its head, now, stands Mr. James R. B. Van Cleave, who is not only a thorough-going sportsman but a politician of sufficient influence to hold an important position on the governor's staff. President Van Cleave has started out to secure better game laws, and when a man high up in politics undertakes such a fight the result is likely to be at least interesting.

If his plans succeed we shall see some sort of check placed upon the wholesale distribution of game through the Chicago markets. The general work of the organization includes the support of the present State Game Warden, Mr. W. H. Loveday. Mr. Loveday has fought a good fight. He has worked so conscientiously against the illegal killing and selling of Illinois game that he is one of the men for whom the Chicago commission merchants carry a metaphorical bowie. Under his direction a great deal of illegal game has been seized. He is now pushing forward a recommendation that district wardens be appointed with salaries which permit the giving of their whole time to game protection. This the commission men will fight and this the State Association will support. The plan of salaried district wardens, is, I believe, a good one. The volunteer wardens, here as everywhere else, object to spying upon their neighbors and are hard to keep at active, aggressive work.

In one respect this organization stands out as a peculiarly bright and shining light among others of the Middle West. It has under way a plan to bring about co-operation among the other state sportsmen's organizations for the procuring of uniform laws. It is now the intention of its leaders to ask for a conference of the sportsmen's associations of all the mid-western states, with a view to securing an interstate agreement to the support of some system of uniform laws. If the Association has the force and energy to push such a movement to completion it will confer a blessing upon Americans of many generations. The time is ripe for just such a movement. Sportsmen of the whole Middle West see the need of uniform laws. Each state is unwilling to undertake any great work for the bettering of its game protection until other states agree to the same. Let the Illinois men initiate the good work with a vim and energy such as will rally round them their dissatisfied fellows, and their country will rise up to call them blessed.

It is strange that such a movement was not inaugurated long ago. We have conferences of every class from sheriffs and mayors to pedagogues and missionaries. Why then no great interstate convention of men who want good laws for the protection of game and song birds and fish? Such a conference, even when uniform laws have been agreed upon, will have its hands full. There will be plenty of fighting in each separate state with legislature, commission men and pot-hunters. But there will be something definite to work for and the workers will feel the strength that comes from united effort, the old plea that "other states are just as bad" will begin to lose its force and pot-hunting lawmakers will be obliged to reform or show themselves in their true light.

If such a conference is held I believe its members will find an overwhelming sentiment in favor of abolishing spring bird slaughter and the sale of game, the licensing of all men who hunt and the forbidding of enormous kills. And when such laws have been passed we shall see bird and game life more abundant in the great Middle West than it has been since pioneer days. We shall see the cold storage warehouses of Chicago empty of quail and prairie chicken. We shall meet men who have come to love sport for sport's sake and Nature for Nature's sake. Then he who goes into the woods in summer may dream that time has turned back and wrapped the earth once more with the glamor of the age of gold.

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GAME COCKS AND COCK-FIGHTING

THIS is not an apology for cock-fighting, a so-called amusement which has fallen from the high estate it held for ages among our ancestors, and is now threatened with legal extinction in two of its strongholds, the Philippines and Cuba, in consequence of the occupation of those countries by our imperialistic forces. It is not too much to say that the action of the United States in preventing farther indulgence in this sport, will naturally tend to delay the peaceful settlement of our differences with these people. There is no amusement "more hallowed by the rust of time" than that of cock-fighting. The first records of China note it. In Persia and India it was early practised in connection with hawking and it was during an invasion of Persia by the Greeks that Themistocles halted his army, about to deliver battle, to witness a chance contest between two cocks, and drew from the sight a moral lesson for his soldiers, by which he wrought them up to such a state of valor that they fell on the Persians so fiercely as to defeat them shortly and utterly. Owing to this victory cock-fighting was thereafter by decree annually practised at Athens.

The spectacle of the combats between these birds was supposed to implant and foster the seeds of valor in the breasts of the Athenian youth. The custom gradually spread among the islands of the Grecian Archipelago, and after a time it became a pastime and amusement, losing the religious and political character with which it started. In Rome cock-fighting was known to have been practised 450 years before the Christian era, but there, as in Athens, it degenerated into a simple amusement, losing its moral features.*

In "Notes and Queries" it is stated that there is no record of the introduction of cock-fighting into England before 1191, though others believe and with reason, that the practice was coexistent with the Roman conquest and flourished during the centuries of Roman occupation of Britain. The habit of school children fighting cocks on Shrove Tuesday in the school and under the auspices and control of the master was carried on for centuries in various parts of Britain, and instances of it are said to have occurred in Scotland within the memory of men now living. During the reign of Edward III. cock-fighting became a fashionable amusement, but it was after a time prohibited by public proclamation as an idle and unlawful pastime. However it still flourished, and Henry VIII. not only devoted himself to it in his seasons of leisure from marriage and uxoricide, but added a cock-pit to the other conveniences of Whitehall Palace.

James I. was so addicted to the amusement that he took his pleasure at it twice a week. While Queen Elizabeth, probably by reason of her sex, is said not to have shown the same active interest in the sport as her royal father, neither did she oppose it, but left her subjects to follow their own choice in the matter. The learned Roger Ascham, who was tutor to the Princess Elizabeth, and Latin lecturer and reader of the learned languages to her after she ascended the throne, was, according to Fuller, "an honest man and a good shooter. Archery was his pastime in youth, which in old age he exchanged for cock-fighting."

In Blaine's Encyclopædia of Rural Sport, he speaks of "Roger Ascham's well known treatise on the subject," but "Johnson's Life" says that though Ascham himself refers to what he calls his "Book of the Cock-pit," if it ever existed in more than his contemplation it has not been preserved. The literature of this period and later treated cock-fighting as a well known and laudable amusement. Not only did royalty and the nobility and gentry of the kingdom set the seal of approval on the cock-pit but the clergy, as is now the case with their brethren of the elder communion in the present and late Spanish possessions, looked on the sport with a benevolent and sympathetic eye. Indeed the Rev. Dr. Robert Wild, rector of Aynho in Northamptonshire, who was equally distinguished as a preacher, wit and poet, published a very clever poem on the subject, called "Verses on Cock-fighting," beginning thus:

"No sooner were the doubtful people set,
The match made up, and all that would had bet,
But straight the skilful judges of the fray
Brought forth the sharp-heeled warriors, and they

* Blaine's Encyclopædia and Johnson's Sporting Dictionary.

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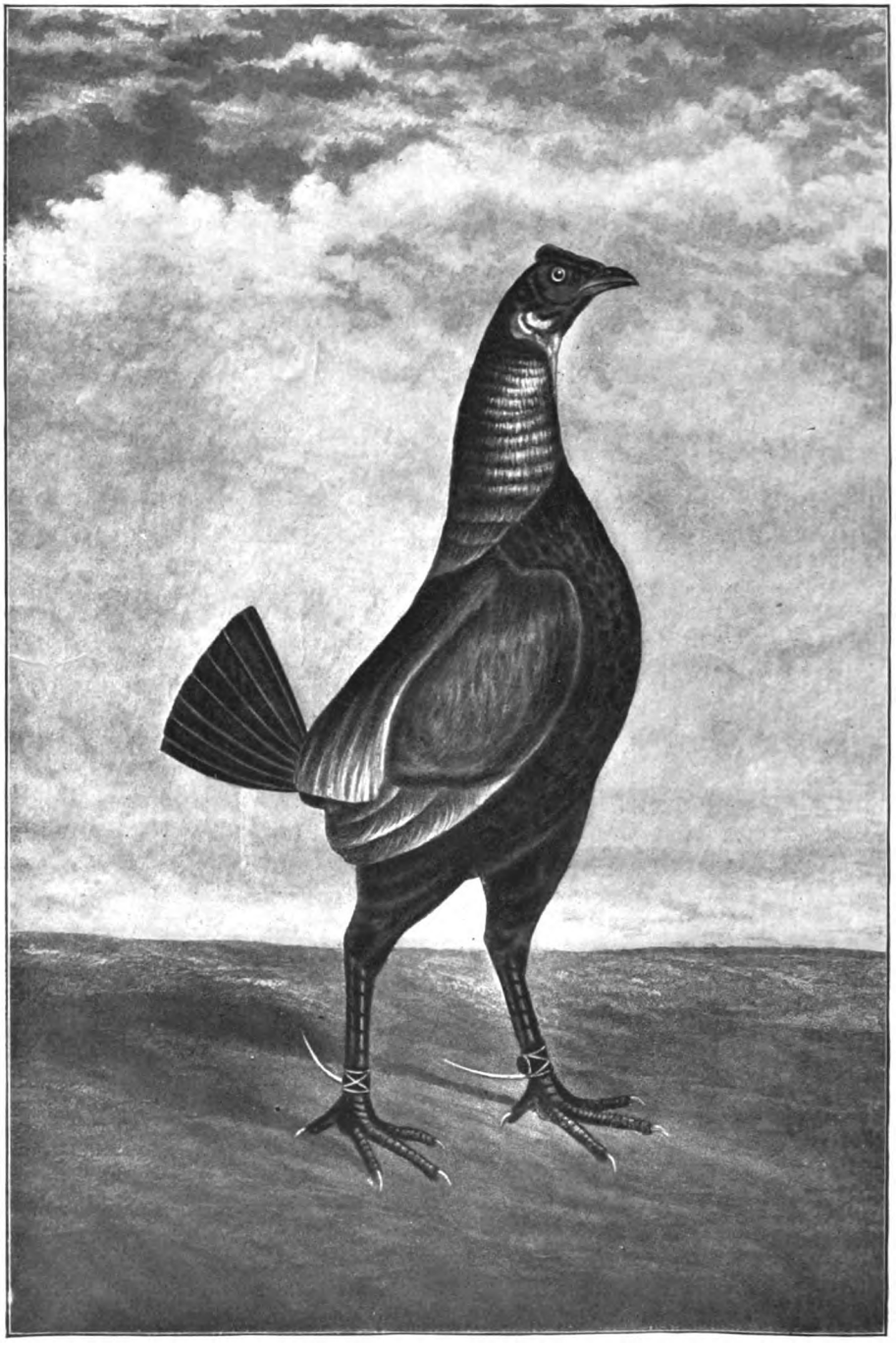

From an old English print.

READY FOR THE BATTLE.

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Were both in linen bags, as if 'twere meet
Before they died to have their winding sheet.
Into the pit they're brought, and being there
Upon the stage, the Norfolk chanticleer
Look'd stoutly at his ne'er before seen foe,
And, like a challenger, began to crow."

* * * * *

In a work entitled "The Whole Art of Husbandry Contained in Foure Bookes," etc., written by Gervase Markham and published in 1631, he says in the Booke containing "Entreating of Poultrie": "I will now proceede to a creature of a much more excellent and heroyicall nature, and such an one as the Ancients for his heighth of spirit and greatnesse of minde, made the only companion of the god of Warre, and that is the fighting Cocke or Cocke for Battaile. And the rather I undertake this labour because I see the great height whereunto this Pastime or Recreation ascendeth, the many judiciall and most expert knowledges which are pregnant with all the mysteries hidden in the art. * * * First to speake something of the nature and dignity of the fighting Cocke, ye Ancients, as Pliny Columella, Varro and others, affirme that of all sensible creatures they are the most valiant, of the highest spirit, and the most constant and uncontrolable in all their actions, for their valour is so infinite that they end their battailes onely in certaine death, and though the conqueror sound his own triumph in clapping his wings and crowing, yet the conquered, even to the last gaspe, will shew all the characters of resistance shewing that however his body may be subject to Fortune, yet his minde can acknowledge no such deity. * * * Now for the antiquity of this pastime or recreation (for I can give it no greater epitheton), some would have it as ancient as the Olimpicke games and that from the imitation of these Birdes, the Gladiators or Fencers first invented and put in practise the art of Sworde play, and sure it is not unlikely, for the first two Cockes that ever were bred would give notice of their nature so that the sonnes of Noah could not chuse but make use of their enmity; but, leaving Conjectures, I find both by Pliny and others that in the Infancie of the Roman commonwealth there was yearly held at Pergamus a solemne triumph or meeting only to behold a Cocke-fight, which continued for divers dayes having the resort of all the nations that dwelled about them, and hence it came to be dispersed farre and neare into other Countries; and for my owne part I doe not finde (in this Kingdom of ours) any monument of pleasure whatever more ancient than the Cocke-pit."

In an earlier work by the same author entitled "Country Contentments" Chapter XIX. "of the Choyce, Ordering, Breeding, and Dyeting of the fighting Cocke for battell" he begins thus: "Since there is no pleasure more Noble, Delightsome, or void of Couzenage and deceite than this pleasure of Cocking is; and since many of the best wisdomes of our Nation have been pleased to participate with the delights therein, I think it not amiss, as well for the instruction of those which are unexperienced, as fortifying of them which have some knowledge therein, to declare in a few lines the Election, Breeding, and Secrets of dyeting the fighting Cocke, which having bin hitherto concealed and unwritten of is (for our Pleasure's Sake) as worthy a general knowledge as any delight whatsoever."

In "The Pleasures of Princes or Goodmen's Recreations" 1614—and "The English Husbandman", 1613—both by Gervase Markham, are long chapters on the "fighting Cocke"—the contents of one being: "The Choyce of the Cocke for battell—The Breeding of the Battell Cocke—The dyeting of Cockes for battell—Of taking up Cockes—Of the Cocke-penne—Of his dyet—Of Sparring of Cockes—The Stowing of Cockes—Of the best dyet-bread—Of the best Scouring—The Matching of Cockes—The preparing Cockes to the fights—The ordering of Cockes after the battell and the curing them."

Fairfax: Complete Sportsman, 1764—and The Country Gentleman's Companion, 1753, contain long treatises on this subject, and in fact scarcely any of the few English books published in the seventeenth and eighteenth centuries on country life, sport, or recreation, fail to give, as a matter of course, full and definite instructions as to the breeding and fighting of game fowls.

The origin of the game cock is lost in the mists of antiquity, but the breed is doubtless older than any other known one of our domestic fowls, though none of the many theories of its derivation is satisfactory. The jungle cock of India has been by some considered the progenitor of the breed, but modern attempts at crossing it or the pheasant with any kind of domestic fowl

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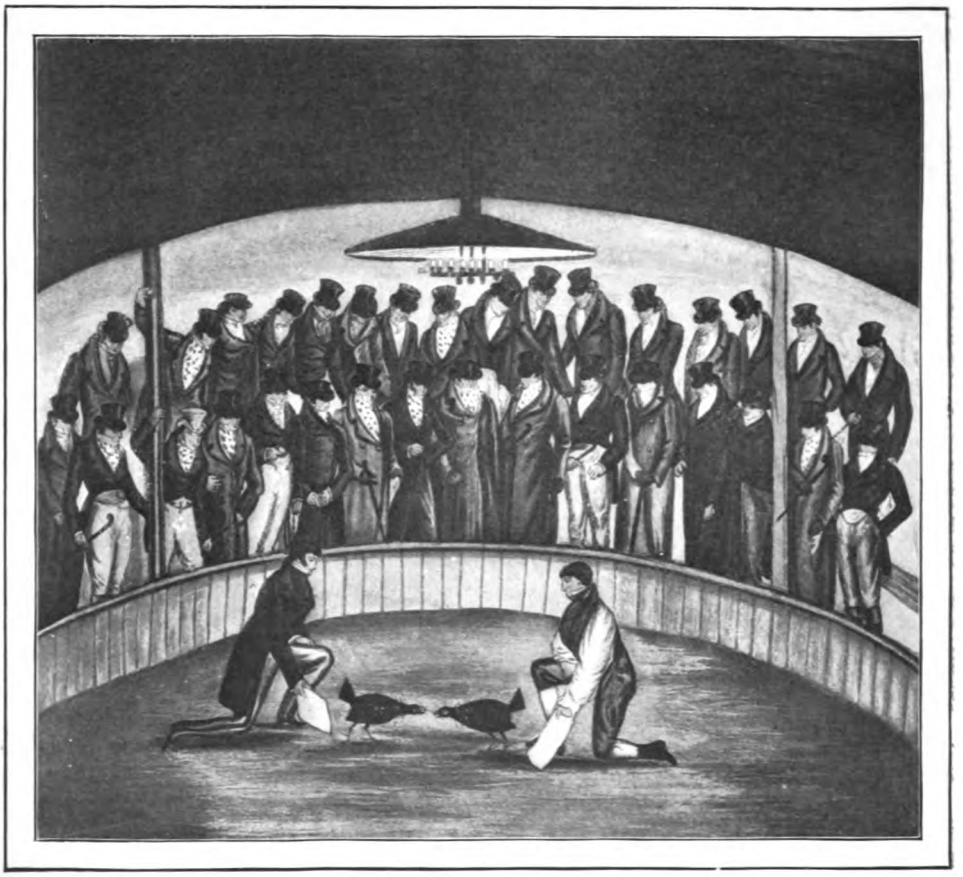
have been disappointing. It is quite possible that the first created cock which crew in the Garden of Eden was a game one, though, if such is the case how all the degenerate families of the present day could have descended from him is almost inconceivable, though not more so than that he should have sprung from any of them. However this may be, he cannot be kept up to the high standard desirable without being permitted to indulge his natural instinct for fighting, and by breeding from those individuals which have developed this instinct in its best form. The extent of this development cannot be known unless cocks are fought, any more than can the excellencies of a football player or of a race horse except they be shown on the field or on the course. Were game fowls bred and fought by those who believe spirit and courage to do or die is the most essential of their characteristics, it is safe to say the breed would be extinct in twenty-five years. It is also safe to say that not one in ten of the so-called game fowls exhibited in poultry shows and advertised for sale, especially in the North, is the genuine article, the embodiment of valor to a greater degree than any living creature, which no odds can terrify, which shows as much willingness to meet a fresh foe when beaten and helpless as when in full force and vigor and dies fighting if unable to do more than raise his head to meet his adversary. To quote Blaine once more: "Philanthropists are in the habit of declaiming much against the practice of cock-pit battles but on reflection the cruelty of that sport will be found among the least wherein the feelings of animals are concerned, since fighting, in the game cock, is a natural and irresistible



From an old print

WESTMINSTER COCK-PIT, 1831.

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passion and can never take place against his will; and since those engaged in regular combat upon the arena would do so voluntarily and with equal ardor did they meet in a desert. Another similar mistake is the supposed additional cruelty of arming the heel of the cock with steel spurs, which on the contrary, conduces to shorten the period of their suffering." The concluding sentence is undoubtedly true and the comparatively short quick battles waged by cocks trained into condition and armed with the gaffs or their own spurs sharpened to needle like points, as is the custom in Cuba, are far less painful than the bloody combats between cocks meeting in barnyards and battering each other into death or insensibility after long and tedious struggles.

The British Isles, until the last half century, have for a long period been the theater wherein the finest breeds of cocks have had the most skilful preparation and handling, and have ended their gallant lives in the carpeted pit before the best in the land. Cromwell's attempt by proclamation in 1654, to stop the sport was only temporarily successful, and with the Restoration it was resumed openly throughout the kingdom. Mains and matches were decided at most of the principal race meetings and for many years one or more mains constituted an essential feature of the great annual race meeting at Chester and York. Cock-pits were established in all the principal towns, and London had many of them, the most prominent being the Cock-pit, Royal Tufton street, Westminster. One of the devotees of the amusement, Col. Mordaunt, widely known as a kind-hearted, generous man, who spent much time and money in wise attempts to benefit the condition of the poor, being anxious to compare the English game fowl with those of India, made the slow and uncomfortable voyage to that remote country with a number of cocks, to test the matter, and returned defeated. What cocker of the present degenerate age would devote a year or more to such a purpose with no hope of reward save that of his own conscience, leaving his native land, his family, and his philanthropic duties without his countenance and fostering care?

The popularity of the sport has not languished until the last few years, and at the present day many a match and main is fought during the winter and spring in the British Isles. Among the famous veterans of the pit, Joseph Gilliver stands at the head by reason of his long series of successes as a breeder and handler. He died in 1833, full of years and honors, and in the enjoyment of a competence earned in his vocation. He won several mains against the cocks of the then Earl of Derby, whose breed of birds is famous to the present day, but the crowning effort of his career was his victory in the greatest main ever fought, which was for 1000 guineas a battle and 5,000 guineas the main. In this seven cocks on a side contested, and Gilliver won five of the battles. His grandson, William Gilliver, was lately pursuing the ancestral occupation in Warwickshire and the descendants of some of the fowls used by his distinguished forbear are now in this country.

In the United States it is doubtful if cock-fighting flourished among the early New England settlers and in these parts it has always been conducted somewhat under the rose. Still the characteristic Yankee enterprise has been the means of bringing out and introducing to the South a strain of game cocks second to none, of which hereafter. Under the less austere conditions which obtained as the English-speaking settlement grew to the West and South the sport likewise grew. In New York and the Jerseys it was considered a pardonable diversion, and by the time the colony of Virginia was reached it was regarded as one of the proper pastimes of a gentleman. Thackeray realized this in "The Virginians," and speaks of cock-fighting as something common to the region and one of the usual entertainments at the country taverns. While at the present day some of the southern States forbid it by statutory enactment, others have no laws against it and cock-fights are advertised and carried on openly in the presence of large crowds of spectators. Many of these performances are held in the day time in the open air, and in the capital of one State where most of the lawyers' offices were built about an open green in the shadow of the temple of justice their occupants were wont to while away the tedium of idle afternoons by making this space the theater of fights which could be witnessed from the surrounding windows.

There are now several flourishing periodicals in the South published in the intere ts

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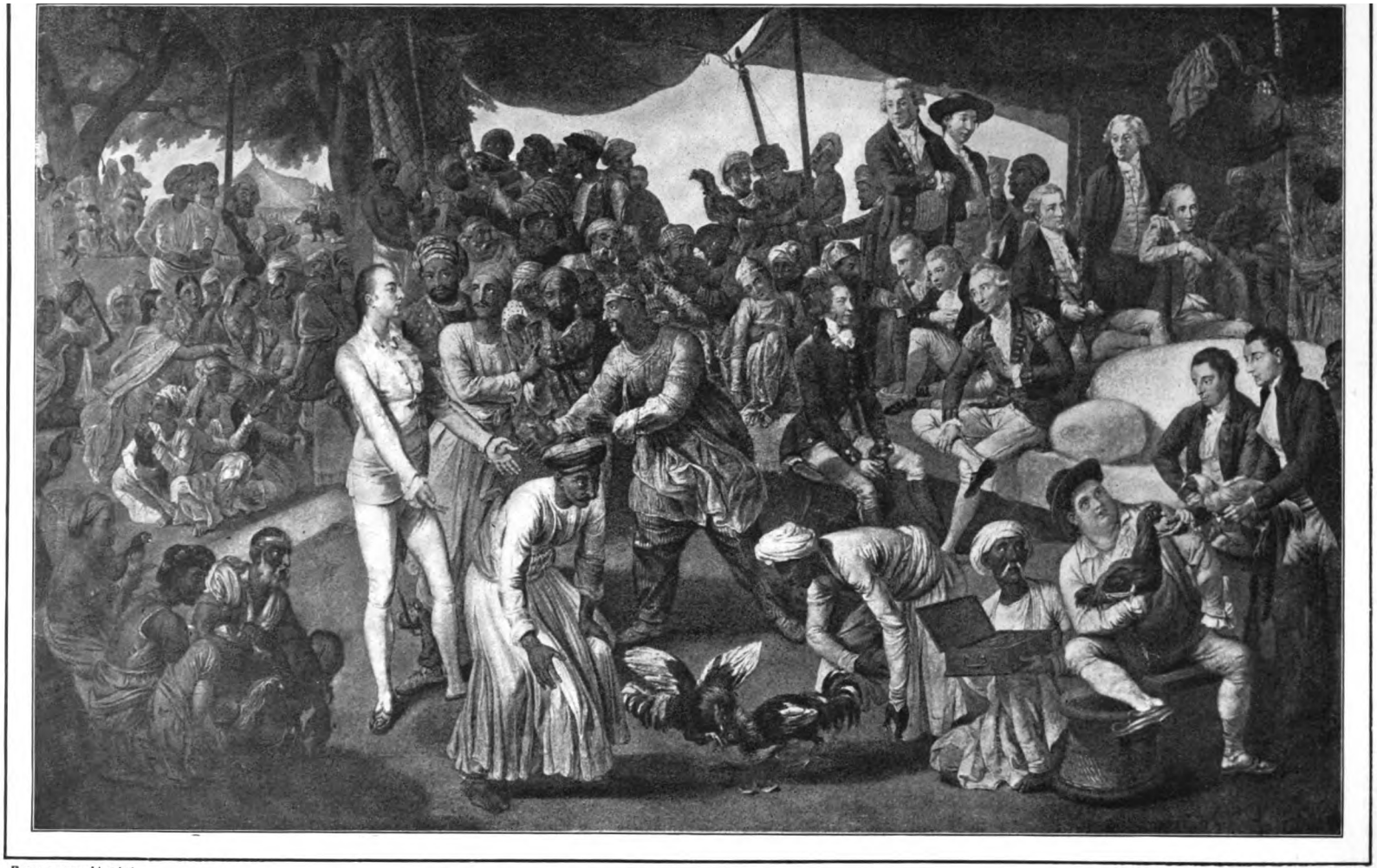

From a rare old print.

THE FAMOUS COCK-FIGHT AT LUCKNOW, INDIA, ON THE VISIT OF COL. MORDAUNT.

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of cock-fighters and full of accounts of mains, challenges from different breeders and advertisements of all the various paraphernalia appertaining to the art. Men in these papers offer for sale cocks of the various fashionable breeds—"Warhorses," "Fannie Carters," "Eslin Red Quills," "Arkansas Travelers," "Gordons," "Cotton Bolls," "Trans-Atlantics," said to be "Hustlers from the jump and always good for one more kick," and many more. One gentleman has such confidence in his strain that he offers to furnish cocks for $12 each paying his own expenses and "conditioning them for mains, great or small, in the Carolinas, Virginia or Georgia," no charge to be made for any cock losing his battle. This certainly is a liberal and sportsmanlike proposition and the maker of it concludes, in capitals, "Try me once and you will want me again." The Warhorse strain is generally admitted to be equal if not superior to the best of the many others, though the "Claiborne's," the "Eslin Red Quills" and the "Gordons" are very highly esteemed. The South owes the Warhorse game fowls, as it does the cotton gin, to New England enterprise. The story is as follows. A gentleman of Marblehead, Mass., who, rising superior to the New England prejudices against this form of sport, fought his cocks wherever victories were to be won and honor gained throughout the Eastern and Middle States, finally penetrated the South, making the Carolinas and Georgia the theaters of his mains. Having met defeat several times in these parts he finally produced some brown and black reds he had procured from the Emerald Isle (as famous for its cocks as for its men), called the Irish Gilders. With these birds he marched through Georgia conquering, as did Sherman, and winning fame and money galore. After several years of conquest, thinking his fowls needed a cross, their owner dispatched an ancient sport named Dolan across the ocean to his native sod in search of the proper birds. Dolan returned from his quest bringing some dark grays, which, crossed with the "Gilders," produced offspring considered unbeatable. These invaded the Sunny South with glowing success, and Shawlnecks, Baltimore top knots, Dominiques and other famous strains succumbed before the quick fighting, hard hitting, clean cutting foreigners. At a main in Charleston, S. C., where one of these birds won by sheer gameness, and after a long struggle, an Irish spectator enthusiastically shouted, "Bedad but thim's the warhorses." The name stuck, and one Hopkinson of Atlanta, who obtained some of the breed has since perpetuated it with loving care, and its unsullied reputation has extended over the broad plains of Texas and to the distant capital of the Mexican Republic. Some of the cocks of this strain are gray in color and these are generally thought preferable to the red ones, even when full brothers—the hens are nearly all jet black.

So long as the sport maintains its present prosperous state in the South there is no danger of the breed of game fowls dying out, though the extinction of the valiant bird is certain to ensue if he is left to the mercies of the philanthropist and such as only admire him for his good looks. It is rather strange that there is no absolutely distinctive type of game fowls, but that they vary more in outward appearance than any of the other breeds. They may be very small or very large, of any color or combination of colors from pure white to pure black, loose or hard feathered and with plain or rose combs. Some have large tassels or topknots and others heavy bunches of feathers on their cheeks called muffs. Blaine speaks of a variety of tailless or "rumpless" games. So greatly do they differ in shape, plumage, color and other details that it is hard to believe they sprang at no very remote period in the life of the world from one parent stock though they probably did so, as there is no peculiarity in the makeup of a game cock that is not found in some of the dunghill tribe. It also seems improbable that any number of generations of selection, natural or artificial, could give to any other families of fowls the dauntless and persistent courage and the fighting ability that come instinctively to game fowls. It will probably never be established that the first created cock was game, though it is far more likely that he should have been made perfect and beautiful to begin with than that he was evolved from any of the thousands of the vastly inferior families of fowls now known. Still the dunghill cock has valorous characteristics which would be highly esteemed but for the more striking ones of his game relation. It is unquestionably one of the former strain which has become the emblem of France, probably by reason of the inhabitants of that country not having knowledge of game fowls.

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The game cock needs no education or experience to teach him war—one which has never struck a blow will fight his first opponent with as much skill and vigor as any succeeding ones, and one drop of admixture of dunghill blood, while it may not impair his fighting qualities, will be sure to assert itself when the supreme test of gameness is applied to him or to his descendants. There are breeds of fowls known to have this strain which have proved very successful in the pit on account of their strength, fastness and fighting powers, over such as are undoubtedly game. Such a strain was one known as the "Gipseys," which held their own for years as the house birds at the old Harlem Lane pit where the genial and obese Luff presided twice a week over the sports. These Gipseys were so fast and strong that they would beat the majority of game cocks pitted against them, yet they would run with great uniformity after a real hard cutting.

A famous New York pit was for years operated in the Bowery near Broome street. There the veterans Giles, Clacker, Moss, Hawkes, Mulholland, and others now departed, were wont to assemble semi-weekly to enjoy the entertainments of those meetings. Sickels of Brooklyn was also a regular attendant, and always appeared dressed as if for church, and looking not unlike the parson Pierce Egan describes in a visit to the Cock-pit Royal in London, and feeding and fighting for his own money as good cocks as ever flew. The glories of these and other resorts of the like character have departed and it is probable that very little cock-fighting is now carried on in Greater New York. The hardy pioneers who won the West for this country carried along their game fowls with their axes and rifles and the shrill crow of the gallant bird was often the first civilized sound to break the silence of the primeval forest. This was especially the case in those parts settled from Virginia and the descendants of those immigrants retain to this day their fondness for a game cock. A Dr. Clarke, of Indianapolis, who besides being an M.D. is also an A.M., has written several treatises on the game cock. A few years since, following, on an easier plan, the example of Col. Mordaunt above mentioned, he took a lot of his cocks abroad and met and conquered the fowls of the leading cockers of France, England and Belgium with a famous strain called the Trans-Atlantic, winning according to his statement thirty-four out of fifty-nine battles. Dr. Clarke relieves the tedium of his professional duties by dealing in game fowls, gaffs, etc., and fighting mains with all comers.

The qualities to be desired in game fowls are:

1st. Cutting, *i. e.*, the ability to hit with their heels about every time they rise and to rise every time their opponents do and in every bill hold.

2d. Hard hitting—the blows of the heels being driven home by the force of the wings applied to them as the cocks rise.

3d. Rapidity in fighting—cocks may be good cutters which are not hard hitters, but disable or kill their antagonists without apparently striking any heavy blows. Others are what are called "wing fighters" from making a great noise and shuffling with their wings but hardly using their legs at all. These are practically worthless. Then there are some which fight with the head low thus exposing unduly that vulnerable point. So a "high stationed cock," one standing upright and keeping his head up when fighting, is desirable. Some cocks fight for the head and others aim their blows at the body. It is a vexed question which of these methods is more to be desired. Certain strains of blood have characteristic modes of fighting and it is the aim of the scientific breeders to intensify by careful selection and crossing the traits he most wishes to preserve and obliterate those which are undesirable. In breeding game fowls more care has to be exercised than with those of inferior varieties. The highest bred animals of any kind are the most difficult to rear. The race-horse which when matured is the strongest and most enduring of his kind is subject to ailments and infirmities, especially in youth, that are hardly known to the coarser breeds. It is so with highly bred dogs, cattle and game fowls. The game cock should not be mated with more than six or eight hens and a smaller number than eight is preferable. The cock and hens should be in perfect health and old cocks should not be put with old hens. They should have as large a run as practicable as they approximate wild birds in their habits and desire to ramble and do better on a good range, than when cooped up. Markham says "the best season to breed is from the increase of the moon in February to the increase of the moon in

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March, for a March bird is of far greater esteem than those bred at other times." This is the belief to the present day and a current superstition, especially amongst those of the Irish nation, is that the egg laid by a game hen after she clucks and wants to sit, will produce a cock likely to run away if fought. It is well to let the game hens set on their own eggs, thirteen being the most popular number notwithstanding the current belief of its unluckiness. Game hens are good layers, good sitters, and as mothers far ahead of any other breed. If they can be turned loose with their broods in a garden containing plenty of young vegetables and fruits and insects and left to get their own living, that is the ideal home for them and under such conditions they are much less liable to the various diseases which decimate the ranks of future champions of the pit. Should the garden prove impracticable the young things should have what is next best in the way of a good run and natural food. A frequent change of diet and cleanliness in the coops where they are housed and fed is very important until they get well along to their first moulting. All of the old masters agree that "if chickens begin to crow at about six months old clear and loud, or at unseasonable times it is a sign of cowardice and falsehood, for the true cock is very long before he can get his voice and then he observes his hours." Early crowing is now considered a suspicious accomplishment. Game chickens, like others, have fights amongst themselves and sometimes quite severe ones at eight or ten weeks of age.

By these fights the mastery is settled and remains settled until after the moulting when the chickens begin paying attention to the pullets. Then, if left together with hens, they will ere long fall out and the ensuing battles are dangerous. If a cock runs with a lot of chickens at this season they are kept under better control, but any number of game chickens may live peacefully in fellowship if put in an enclosure, before they get their courage, and kept there without any female companionship whatever. Under such conditions they agree perfectly and dwell together in the greatest amity with no more idea of fighting than so many doves. The introduction of one hen, however, will destroy for ever the harmony of the happy family. At six months of age, especially if they are to be fought that winter all the cock chickens should have good walks and the refining and encouraging influences of female society. Some experts say that no game chicken gets his full courage without being on a walk with hens for six weeks and he may still be game and fly the pit if tested at the end of a shorter period of independence. Markham and other old masters assert that a cock should not be fought earlier than at two years of age,* but stags, *i. e.*, cock chickens which have passed their first Christmas and have been well walked are about as good, especially by springtime, as they ever are. By general concensus of opinion in the North the New England festival of Thanksgiving and the anniversary of the birth of Ireland's favorite saint mark the beginning and end of the cock-fighting season, though Fairfax, speaking for Britain says: "The best time to take up your cocks is the latter end of August (for from that time till the latter end of May, cocking is in request)." As this would include the season of moulting, when the best of game cocks are so weak and depressed that they will sometimes be unwilling to face another cock, it is probable that Mr. Fairfax has put his date too early.

Now if the owner of some game chickens wishes to fight them, in violation of the law, and knows or thinks he does, some sure method of evading the penalties he is to incur, and can learn of some surreptitious pit where his battles may be fought with one similarly circumstanced, what is he to do to get his birds into action in a condition fit for them to show their full powers? It was unanimously agreed by all the princes, clergy, literati, and gentry to whom we have aforetime alluded that cocks to be fit to do battle should be judiciously "ordered and dyeted" and the "Country Gentleman's Companion", 1753, voices the public sentiment of England when it states, under the head of "Dieting of Cocks for Battle": "In it only consisteth all the ground and substance of the pleasure, the best cock undieted not being able to encounter with the worst cock that is dieted." In the old days the time occupied in "dieting" was from four to eight weeks with a preponderance of authority in favor of six weeks, and a short synopsis of one of these methods which the author says

*At two years old you may put a cock to the battle as not being before perfect and complete in every member.—*Fairfax Sportsman*, 1764.

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has never before (1750) been divulged may prove instructive. It is only fair to say regarding this claim that every other writer of this period pretends to equal virtues for his recipes on the subject. The cock to be treated is put in a pen at least three feet in hight and two feet square every way, and fed for three or four days on the finest, coolest and softest spring water you can get, and thrice a day, at "sunrise, high noon and sunset, a good handful of 'old Manchit' without crust, cut into little square bits. After four days take him and another cock and putting a pair of hots upon each of their heels, which hots are soft bombasted rolls of leather covering their spurs so that they cannot hurt or bruise one another, and so, setting them down on the green grass let them fight and buffet one another a good space." After this exercise "you shall take butter and rosemary finely chopped and white sugar candy, all mixed together and give him a lump thereof as much as your thumb." When this is down the cock is to be put in a "deep straw-basket, with soft sweet straw in the middle, then covered with sweet straw up to the top, and then lay on the lid close and let your cock stow and sweat until the evening." In the evening at four, "you may take your cock out of the stow and licking his head and eyes all over with your tongue, put him into his pen" and give him some bread moistened with a saline solution "to cleanse his head and body." From this time to the end of his "dieting" the cock shall be fed with bread made as follows: "You shall take of wheat meal half a peck, and a like quantity of fine oatmeal flour, mixing them together knead them into a stiff paste with ale, the white of a dozen eggs, and half a pound of butter; and, having wrought the dough exceedingly well make it into broad thin cakes; being three or four days old and the blistering of the outside cut away, cut it into little square bits and give it to the cock." Every other day to the end of the first fortnight the cock is to be sparred or "chased" which is done by "showing him a dunghill cock in your arms and run away from him enticing him to follow for half an hour at least, suffering him now and then to have a stroke at the dunghill cock." After each of these diversions the cock is to be "stowed" in a basket as before. After the first fortnight he shall be fed in the same manner, but shall only be sparred and stowed twice a week. The third fortnight the cock shall be fed in the same way, but not sparred at all, but "twice or thrice let him run and chase up and down, and now and then cuff a cock which you shall hold to him in your hands, then give him his Scouring well rolled in the powder of sugar candy."

"At the end of six weeks feeding, finding your cock in lust and breath you may fight him at your pleasure, observing that he have at least three days rest before he fight, and well emptied of his meat before you bring him into the pit." After this follow several pages on "The Matching of Cocks," showing how you may outwit your adversary or he do the same by you—"Of Preparing Cocks to the Fight" and "The Ordering of Cocks after Battle and the Curing them." The final paragraph of this monition is as follows: "After you have put forth your wounded cocks to their walks and come to visit them a month or two after, if you find about their heads any swelled bunches, hard and blackish at one end, you may know that in such bunches are unsound cores; therefore presently with your knife you shall open the same and squeeze out the cores with your thumbs; then with your mouth suck out all the corruption and fill the holes full of fresh butter which will cure them. And thus much for the nature of the cock and how to keep him for his best use."

This is a rather long digression from the instruction to the amateur anxious to embark properly equipped on his career of cock-fighting. The modern methods of feeding, which he would be likely to prefer to that which has just been described are quite different from it and probably preferable. The time now used in feeding is eight to ten days for chickens and stags, and ten to fourteen days for cocks. The following is a synopsis of the rules of a distinguished southern feeder. They differ chiefly from the northern rules in not prescribing cock-bread or sugar candy. First day the cocks when empty are given five grains of asafœtida each, with plenty of water and no food or exercise; second day, in the morning, give the cocks a tablespoonful each of scalded wheat and the same of scalded cracked corn mixed, half the amount at noon and evening, with a little water, no exercise. Third day, in early

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morning, fly them five or six times, and after half an hour rest give each cock three tablespoonfuls of oats, cracked corn, and wheat scalded, no dinner, and before feeding at night in the same, give them five or six flys each. Fourth, fly eight or ten times in morning and again in afternoon, increase feed and exercise a little if cocks are doing well. Fifth day, increase work and feed a little (the flying is done by tossing the cocks in the air two or three feet so they will alight on a stuffed cushion in a box or barrel in front of you). This day begin feeding the white of one boiled egg to each cock morning and night mixed with crushed oats and crushed corn, scalded. Sixth day, spar the cocks of equal weight until they are blown and get to billing, of course putting muffs on their heels, same work and feed as yesterday. Seventh day, work the cocks well in the morning and very little at night, feed twice on white of egg and cracked corn. Eighth day, muff your cocks and spar them until they come to billing, feed as before. Ninth day, give cocks tablespoonful of warm mush made of sweet milk and crushed oats and two swallows of water. They are then ready for battle that night or the tenth day. If cocks are to be fought with short heels they should have rather more work after the fifth day. "Short heels" are gaffs of one and one-half inches or under in length. Many fights in the South are with "long heels," two to two and one-half inches.

When the cocks are properly prepared and brought to the pit, before fighting them they must be "cut out" *i. e.*, have the wings trimmed slopeways when the wing is spread out, the tail cut about one-third of the distance from the end and the hackle and feathers about the rump shortened. The English method is to also cut off the neck feathers very closely, make the tail shorter and thinner and clip the rump almost bare. When matched, and cocks within two ounces of each other are matches, they fight according to the rules of the pit where they may be, and they vary considerably, there being three distinct sets of rules in the United States and Canada, another in England, still another in France and Belgium, where the sport is beginning to gain foothold. These rules are all modeled on the English ones and are too lengthy for the compass of this paper. In substance, the cocks are laid down after having been allowed to bill each other three or four times and are not touched by the handlers unless one is fast in the other or in the carpet or sides of the pit. When one cock refuses to fight the handler of the other can count ten aloud five times and at the end of the fifth time the cocks are placed breast to breast in the center of the pit. If the cock still refuses, the handler can count ten aloud five times more and if the bird does not then fight he loses the battle. If he makes so much as a peck, however, during the counting the other cock gets no advantage.

A curious custom prevails at the present day taken from an old English one, which reads as follows: "If during a battle any person offers to bet ten pounds to a crown, or throws his hat, glove or handkerchief into the pit which is so understood though not a word is spoken, the teller immediately begins to tell forty in a deliberate manner, which being done he proclaims 'ten pounds to a crown is offered, will anybody take it? will anybody take it?' No reply being made the battle is won by the cock upon whom the odds were offered. A handkerchief, hat or glove thrown in the pit indicates acceptance of the 'pound' for so it is called in England, and also here where a pound is $20 against $1, and any article thrown in the pit as in England, indicates that a cock is 'pounded.'" Another custom which formerly prevailed in England has not crossed the Atlantic. "Persons making bets in a pit which they were afterwards unable or unwilling to pay were drawn up in a basket over the pit by pulleys where they remained suspended during the play."

There is a long article in Pierce Eagan's "Book of Sports," in which is detailed in a very interesting manner, a night's visit to the Cock-pit Royal. The erudite Dr. Maginn in "John Manesty" has a chapter on cock-fighting well worth reading. Any one, no matter how virtuous, if he wants game fowls to ornament his estate, and no domestic bird is so handsome as a full plumaged game cock, would prefer to have such as he knows to be highly bred, and free from dunghill strain. Let such reflect that if cock-fighting were abolished throughout the world his immediate descendants would probably be unable to procure game fowls anywhere and the breed would inevitably become extinct.

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THE WOLF IN MYTH, LEGEND AND HISTORY

By Lynn Tew Sprague

NO wild animal of Europe has won a fame at all comparable with that of the wolf. In myth, legend and history it figures above other beasts with an insistence which at first sight seems mysterious. What the grizzly bear is to our own far West, the tiger to India, the lion to parts of Africa, all that and much more was the wolf to our ancestors over the sea. Not only is it the chief hero among all brutes in the folk-lore of all countries of Europe, but it continues to this day to be an object of superstition among the peasantry, and its very name is a metaphor of dread.

The largest and most widely distributed of American wolves is not surpassed in strength, courage or sagacity by any European variety, and our pioneers were not without harrowing adventures with them. But our wolves acquired no such celebrity as their European congeners. The bear was generally regarded with more respect and fear by our early settlers, and its name rather than that of the wolf, is the one to conjure with in tales of wild peril. There is no essential difference between the bears of eastern North America and those once widely distributed over Europe. Why then is the wolf the "Terrible Beast" of most old tales from Scandinavia to Italy and from Spain to Russia? Philology has recently solved so many riddles that nowadays it is the fashion to explain everything by philological and etymological science, and the learned in old tongues would have us believe that the voluminous folk-lore of European peoples is largely a diverse rendering of old Grecian myths, or myths of antecedent Aryan stocks. But when the "glory that was Greece" had passed away all fancy did not die, nor did imagination cease to be stirred by stern adventure, and there is little doubt that a cruel experience of our European ancestors, with packs of famished medieval beasts, has had most to do with tales of wonder that are told around modern peasant hearth fires.

The truth is the wolf was a veritable terror in the middle ages. Ignorance of husbandry, spoliation by robber barons, wicked, reckless and protracted wars of petty sovereignties brought frequent famine. The wolf thrived where other animals declined. Hunger-driven, hunting in packs, sweeping with the dash of cavalry charges, it often destroyed such domestic animals as the cruel times had spared, devouring frequently the feeble, famished folk in the field, and even in their frail hutches. Animals like the bear might die of hunger in a wasted country where the wolf flourished and filled the land with fear. Perhaps all this is some part of the reason for a state of things that many have marveled at. Bears are still to be found in many parts of our eastern States, while the wolf is no longer known east of the Mississippi; in Europe the wolf remains in about the same proportion, while the bear has all but disappeared.

The wolf then, next to man himself, was the most terrible of medieval scourges, and as he was a constant thought of the child mind of our antecedents, he stimulated their imagination and intoxicated their fancy. He became the chief figure in tales of superhuman adventure, and fed their limitless beliefs. Then arose the horrid tales of were-wolves or man-wolves. It is not necessary to suppose this superstition a development of the classic tale of Lykaon, or any ancient myth. Lycanthropous beliefs are common to every race. In Japan men turn into foxes. To a negro anything that moves may be a bewitched, malignant person. The American Indian rather prefers to become a bear, but his fertile fancy is capable of believing mountain or cloud the metamorphosis of warrior or squaw. Yet these peoples inherited no Aryan traditions, are not versed in Grecian mythology and probably do not spend much time reading Ovid.

It is natural to believe that the were-wolf superstitions of our forebears were the result of actual environment, and no crime, fantastic, weird, horrid, revolting, but what was alleged of these men-beasts, and firmly believed. In the very earliest stories of

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which we have any trace, men in wolf form might even be of good repute, and work for beneficent ends, but as Christianity swept over the Teuton barbarians of the North, religious fanaticism soon arrayed all that savored of magic on the side of the evil one.

No man knew but what at any moment his neighbor, friend or even his wife, or parent or children, might be transformed and do atrocious deeds. Here is a sample were-wolf story—there are hundreds of them:

A gentleman of Auvergne goes hunting and is attacked by a huge and ferocious wolf. The beast is invulnerable; the man's gun has no effect. In a terrible hand to paw conflict the man has the good luck to hack off one of the brute's forefeet and escapes. On the way home he examines the trophy, and finds to his astonishment that it has turned to a woman's hand and his wife's wedding ring encircles a finger. At home he finds his lady nursing the wound. What should a good medieval Christian do? He denounces his wife as a were-wolf and she is burned alive at Riom in the edified sight of thousands of the pious.

There were intermittent fevers of were-wolf frenzy; the belief in them was as wide and as deep and as common as the belief in ghosts. Accused persons were tried before bishops of the church and condemned to the wheel or the stake on the slightest suspicion. An alibi from the scene of the crime counted for nothing, since the malignant spirit on entering a wolf's skin might leave behind its human body if it listed. And to add to the public credence confessions on the part of the accused were not wanting. Baring-Gould has collected many of these stories, and weird reading they are. England, Germany and France were infested with were-wolves and instances of belief in them may be found among the peasantry at this day. In the sixteenth century such credulity was common. Bishops of the Catholic Church in Germany solemnly declared: "Were-wolves far more destructive than true and natural wolves." It is not to be wondered at that with such a belief in the very air insane delusion sometimes led the feeble-minded to the conviction that they, themselves, were indeed were-wolves.

But a general decline in the belief in were-wolves came in the seventeenth century, and was replaced by beliefs in the supernatural power and sagacity of certain notable wolves. The beast was no longer a man or a woman, transformed, but a wolf whose intelligence, cunning and strength exceeded that of any man. When in some locality a fierce wolf committed depredations he was immediately endowed by the peasant's fancy with superhuman attributes. It was no use to hunt him, for he was invulnerable; the hunter only went to his own death. All the marvelous stories of other wolves became a part of the career of the particular dreaded brute. His very daring protected him. As for cunning, Mr. Thompson's "Lobo" was a mere bungling child in comparison. There are hundreds of stories of such distinguished wolves. One in Germany in the early part of the seventeenth century used to spring down the wide slanting chimney, across the blazing hearth-fire in winter evenings, and sit at supper with the affrighted family, who dared not object. He always ate the youngest for his dessert. Some thought him the evil one himself, and indeed with all his ferocity he did have one gentlemanly instinct; he never intruded twice upon the hospitality of the same hut. The simple folk seem to have submitted tamely to the eating of their babes. But once this monster thought to vary his repast with a much-prized pig. That was too much. The peasant host found courage to kill the beast with a pitchfork, and as he expired he miraculously shrunk to the size of an ordinary wolf.

One comparatively recent example of this kind of wolf-hero is found in the Beast of Gévaudan. This ferocious animal terrorized two French departments for nearly a whole year in the early part of the last century. "He was placarded, like a political offender, and ten thousand francs were offered for his head. And yet when he was shot and sent to Versailles, behold, a common wolf, and even small for that."

All sportsmen can testify that the spirit of exaggeration is not quite dead yet, though American wolves have not been treated as courteously in this respect as the European. There were and are, however, real facts upon which some of the fame of wolves may rest. If those of long ago had miraculous attributes, so had every contemporary priest and saint; if the same wonderful achievement is told of different wolves, that too, is quite as frequently the case with human celebri-

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ties; and, finally, if great fame is built on small achievements, do not we all know what humbugs nine-tenths of our popular heroes are? Wolves were once veritable scourges in Europe. They were abundant everywhere. Along lines of travel in England, huts of refuge were maintained. The beasts were finally extirpated there in the early part of the 16th century. In Scotland they survived until the 18th century. But in parts of continental Europe they are still found. In the year 1885, France paid a bounty on nearly one thousand slain wolves.

Of the fierceness of a pack of hungry wolves, one story from hundreds of a class told without exaggeration, may be given: In the winter of 1860 a party of English gentlemen who were wolf hunting in Norway drove from their inn to a locality infested by wolves, in a sledge made with thick high, plank sides. They were soon at their dangerous sport, but the wolves proved numerous and bold beyond expectation or any previous experience. The horses, becoming unmanageable, broke loose from the sledge and were pulled down and devoured by the wolves in the sight of the party. The beasts also ate those of their own kind which the hunters shot, and this seemed to make them more bloodthirsty. They kept increasing in numbers, and grew bolder as night fell. Finally it became necessary to overturn the sledge and crawl under it to avoid the springs of the boldest of the beasts. With hunting knives, holes were cut, through which the hunters shot, but they became so benumbed with cold that their fire had little effect. When it grew dark the wolves swarmed upon their extemporized fortress, and so fierce and desperate were they that in places they gnawed holes through the wood. It was a night of agony for the hunting party; but at daylight, the beasts became less bold, and the gentlemen were rescued by native hunters. The thick planking of the sledge alone saved them on a field where the remains of nearly a hundred wolves were counted.

There are numerous records of well authenticated instances of the display on the part of the wolf of great cunning, sagacity and strategy. They have "played possum" or feigned death under various tortures, and so effected escape. They have sometimes even drawn up set fish lines and taken the fish. And they have repeatedly sprung traps from the under side, and "have frequently been known to take the bait from a gun, without injury to themselves, by first cutting the line of communication between the two." They are also many examples of the domestication of wolves when captured young; and when tamed they have shown fondness for their masters. When domesticated they will mate with dogs toward whom in their wild state they seem to have a natural antipathy. But captured, partly tamed wolves have relapses into savagery and are not considered desirable pets. Whether the dog is a descendant from a common parentage with the wolf has long been a mooted question. Some authorities think dogs more nearly allied to the jackals, or to so-called wild dogs of certain lands. But all, together with foxes, belong to an extensive, widely scattered and interesting genus. It is one of nature's many contradictions that an animal whose name is a synonym of ferocity and fear should differ scarcely at all anatomically or physiologically from the one which is man's most faithful and trusted friend.

A WOLF CHASE ON THE NORTHWEST PLAINS

By Fred. S. Stimson

MANY moons have come and died since the noble buffalo were killed off the plains. Following these herds were packs of wolves in twos, 'ens, and twenties, even often so many as fifty in a bunch. They mainly depended on the buffalo for food, and their method of attack was deliberately planned and carried out with great cunning. Cutting out one from the herd, eight or ten

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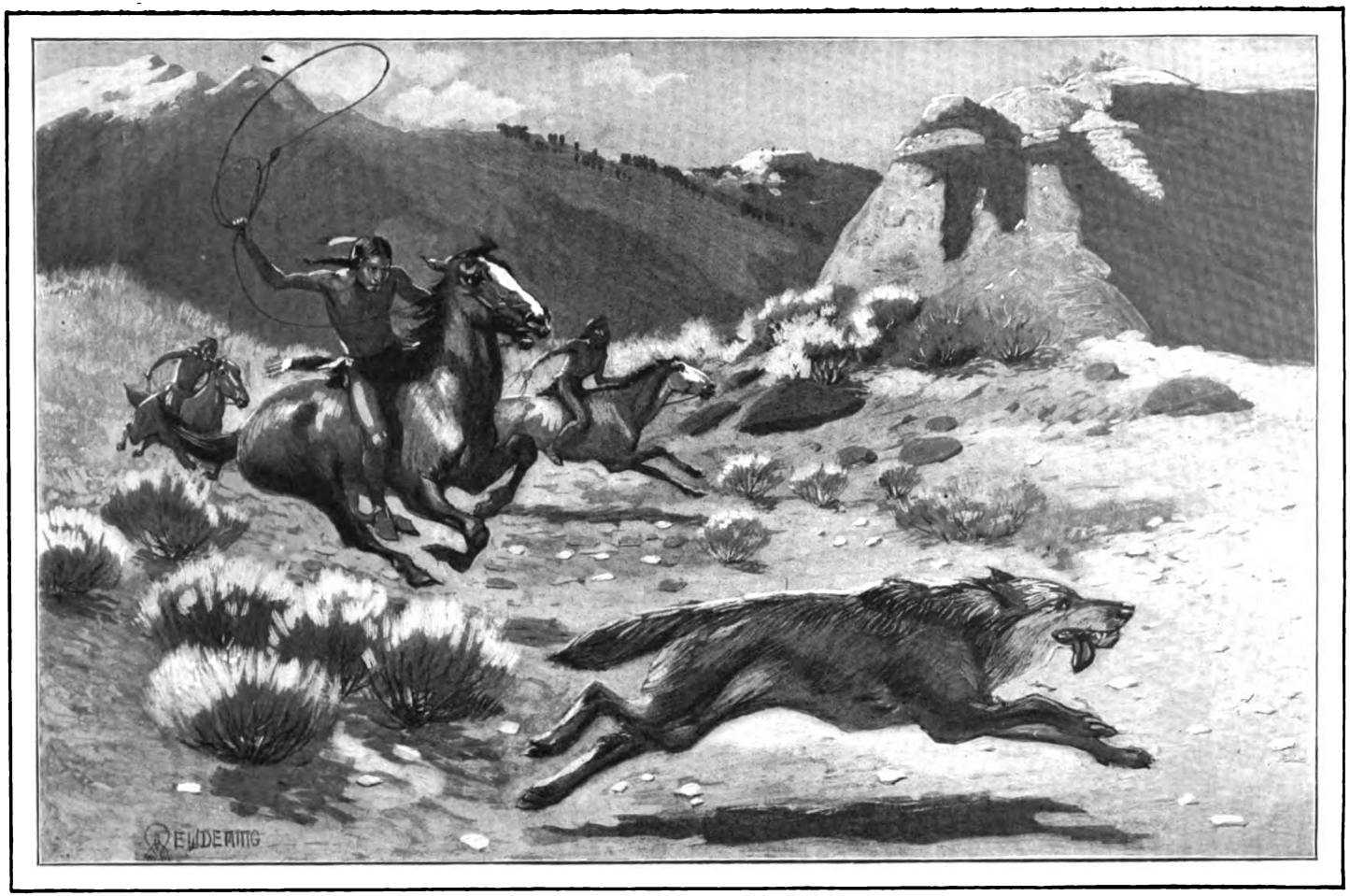

"THE WOLF BROKE FOR THE HILLS, BUT WAS HEADED OFF AND FAIRLY DRIVEN OUT ONTO THE FLAT WHERE HE WAS RUN BY THREE INDIANS."

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of the leading wolves would make the attack, and while those at the head and flank occupied the animal's attention, the others in the rear would hamstring it. Once the quarry was brought to earth, the whole pack swarmed upon the carcass and in an incredibly short time nothing was left but a skeleton, for their cousins, the coyotes, to pick clean. The big herds of buffalo drifted east from Alberta and were held from returning by the Assiniboines and the Sioux; consequently the wolves nearly deserted the country in the foot-hills, as there was little game for them to subsist on.

A class of frontiersmen, who are known no more on the plains, followed after—these were the "wolfers," who depended on strychnine to earn them a living. Having shot a buffalo, they rolled him on his back, opened him, cutting his liver and heart into small pieces, mixing the whole with the blood and emptying in an ounce of poison and then flagging the carcass. I have seen, lying dead near this bait, from fifty to seventy-five wolves which were drawn to the "wolfers'" camps, where the squaws skinned and stretched the hides. After the buffalo were exterminated, wolves rarely were seen.

Then came the cow and the cowpuncher and in his wake the wolf again, which for a time was so little in evidence no especial effort was made to destroy him. Occasionally on the round-up one was roped or shot or an earth found and the young smoked or dug out. Cattle increased by thousands and wolves again were in packs. It came to pass that to see a cow bawling for her lost calf and the signs of wolf fangs on cattle at the round-up were of every-day occurrence. Finally the cow-man realized that it was a question of either killing the wolves or of being cleaned out by the brutes; and packs of hounds were imported. The dogs had never hunted wolves and were of little use, but the pups bred from them and entered at ten months or a year old came in time to be grand hunters, and offered good sport. Yet the wolves were very audacious. Ten lodges of Blackfeet camped across the creek near my home ranch, on their return from cutting tepee poles in the mountains, and at daybreak four of their horses had been killed and several others cut by wolves. An inch had fallen during the night, so was easy to follow, and the tracks indicated a large wolf. We followed the trail about an hour, when it led into a range of rolling hills. Here the ten Indians divided, each following a different line, the four squaws keeping out on the plains with the spare horses. I followed the trail with an Indian, who led at a smart gallop; he never once hesitated and we were swinging along, when I saw another Indian about a mile away, riding backward and forward on top of a butte as a sign that we were to ride to him. He had seen the wolf and it had disappeared in a clump of cottonwood in a coulée. We felt he was our meat if we could head him off and run him out on to the plains, as it was impossible to follow him at any speed among the deep coulées and high buttes in the foot-hills where there were so many patches of brush in which he could cache himself. One Indian followed his trail up the coulée, the others riding along the brow on each side; the wolf broke for the hills, but was headed off and fairly driven out onto the flat, where he was run by three Indians, who tried to circle him round to us. The wolf seemed to have the best of it, though the bucks were riding for all they were worth, two about a hundred yards on each side of the center Indian. Fortune favored us, for the line led near the squaws with the spare horses; it was the work of but a moment to make a lightning change, and it seemed as if it would now be only a matter of moments before the Indian ran into the wolf. Sic Owecasse, the Indian in the lead, rode like a fiend; badger holes, washouts, counted for naught. He was rapidly gaining on Lobo, who now changed direction; for half a mile he ran in plain sight, and showed signs of distress; then he headed for a rocky coulée, and gained it, in spite of spur and quirt, though not a moment too soon. They bombarded him plenty with Winchesters, skulking along the dry bed of a stream, and taking advantage of every depression, but Lobo came out on the other side with a whole hide. "Two Guns," a well-mounted light-weight, circled him round and drove him back into the coulée, and as he was climbing the opposite bank, I planted a shot in his spine. The brute, though paralyzed in his hindquarters, showed plenty of sand and stood off my four dogs, any one of whom could kill a coyote, single-handed.

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THE SPORTSMAN'S VIEW-POINT

BY CASPAR WHITNEY

"To brag little, to show well, to crow gently when in luck; to own up, to pay up, and to shut up when beaten."—*Dr. Holmes's definition of sportsmanly bearing.*

Crisis in College Sport. The controversy over the eligibility of Glass, a Yale football guard, can be viewed in no other light than as a crisis in university athletics; and although it is regrettable that an undergraduate receive publicity so unenviable among his fellows, yet it should be borne in mind that not the individual but the principle of generous, wholesome intercollegiate rivalry, which Yale outraged in playing him, is the real subject of protest. Either the reforms, fathered by the friends of college sport, have been sincere and of abiding good, or the professed standard of athletic ethics is a counterfeit to be upheld for only so long as it does not interfere with the making of a winning combination. That is what this controversy stands for.

To play Glass was to ravish the spirit of university sport and the letter of the college athletic law as laid down in the leading colleges of the country, Yale included. This is the simple fact which no argument can refute. That the attitude of Yale's athletic management on the Glass question was wholly consistent with its attitude on several similar cases upon which it has passed within two years has no bearing other than to emphasize the latest offence. And it is an attitude which no college man can view complacently, for it signifies defiance not only of Yale's own plainly written athletic law, but of the spirit of university sport; not to mention total disregard of the sentiment of practically all the Yale *alumni* and of at least a good half of the undergraduates at New Haven. Thus, as may be seen, I do not exaggerate in saying that no case of such deep import has come before the college world in recent years; it has gone quite beyond being a mere question between Yale and Harvard, or Yale and Princeton.

There is agitation of this Glass question at New Haven, as I write several days before the Yale–Princeton game, and I cannot help feeling that the resentment of Yale men over the perversion of the old traditional spirit will result in a protest which the local athletic management can not withstand. Truth is, the Yale "athletic management," whoever that convenient and omnipotent body may include, has just about run away with things at New Haven. By reason of its audacious and repeated violation of both spirit and letter of the college athletic law, it has drawn more criticism upon Yale in the last two years than fell upon the University in the preceding ten. It has brought Yale to a position where its actions are viewed with distrust; and a management which can so affect this grand old institution, should be called to a reckoning.

I must feel that Yale will respect Harvard's protest and withdraw Glass from both Yale's big games—because to play him against Princeton and not against Harvard would, of course, be intolerable to Princeton.

Why does not Yale make Walter Camp alone responsible for the ethics of its teams?

Rise and Fall of Football Greatness. It has proved to be an interesting football season, with fewer disputes than is usual and some very great surprises. Not the least of these were furnished by Pennsylvania in the East and Iowa in the West. Pennsylvania's team is the poorest it has had since taking a prominent place in university football, and the weakest I have seen in ten years representing a leading eastern institution. I cannot, I must confess, believe lack of material to be entirely responsible for the poor showing. The men average light, compared with Harvard, Yale, Princeton, Columbia, and with previous Pennsylvania teams, but they are not so light or young as Annapolis by whom they were beaten, nor so light as

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"PERFECTION" WINNER OF THE AT WEMBLEY, 1924.

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Syracuse, which defeated Columbia after the latter had beaten Pennsylvania. They have abundant pluck, too, as proved by their unceasing efforts against overwhelming odds in the Harvard encounter. To my way of looking at it, Pennsylvania's chief trouble seems to have been that the team didn't know the game. In both the Columbia and the Harvard games, the tackling was absurdly schoolboyish, while the runners for periods turned their backs on the line as they struck, and ran very high. Their plays too, were not tied together, and flashed sometimes brilliantly, only for a brief spell. Yet the men were alert and quick to take advantage of the opponents misplay—it was this quality alone which enabled them to score on Harvard's fumble—and seemed to have a good football spirit. I cannot help feeling that the Pennsylvania players have not done themselves justice, and that thorough drilling in the rudiments of the game would increase the team's effectiveness by fifty per cent.

Either Iowa has taken an extraordinary tumble from its form of last year—or else its opponents have sped onward at an amazing rate in the game's development. Last year Iowa did so well as to dispute premier honors for the Middle West with Minnesota, but this year it has been beaten by Illinois, which lost to Northwestern, 11–17—neither of these being in the first class.

Michigan is the coming eleven of the Middle West this season, and it is a very great disappointment that Ann Arbor has no game scheduled with Wisconsin, which outclasses Minnesota, for between these two rest the football honors of this year. Perhaps there may be a post season meeting between Minnesota and Michigan. Chicago is fully as disappointing in the West as Pennsylvania in the East, and there should be a bond of sympathy between them for both are suffering to some degree for past dependence on exceptional individuals. Chicago has not had so weak a team since Mr. Stagg first took its football interests in charge; it has been ignominiously beaten.

On the other hand the smaller Middle Western College elevens seem to be steadily advancing in scientific play. Wherein they differ from the majority of corresponding colleges of the East, which appear to be just about holding their own, so to say. And of one of these, Brown, can hardly be said it is doing so much as that, while another, Lafayette, is quite drawing away from its normal class and nearer to that of the big elevens in their mid-season form: yet another, Pennsylvania State, has also bettered its position this season.

But the most rapid rise of the year is that of Syracuse, which came upon us so suddenly as to be startling. To be sure its prominence rests upon the defeat of Columbia, 11–5, but as Columbia played the second week in November, that is basis sufficient and substantial. The Syracuse eleven was light, featherweight in comparison with Columbia, but the speed of their play and the character of it, rejoiced the hearts of football enthusiasts who are not reconciled to the premium on weight which the modern game seems to offer.

Columbia can hardly be called a new factor in football—for last year Mr. Sanford gave us practical evidence of his ability to get more football out of eleven given men than any other coach in the business. And this year, with no unusual amount of legitimate material to draw upon, he has turned out a team which will rank certainly within the first half dozen teams of the East. If Morley, surely among the best backs of the game, would run his team faster—it might rank even higher. The eleven seemed at its best against Yale, and just about as good against Pennsylvania; against Cornell it was not nearly so strong without Weekes, its fastest runner and strongest defensive back. With every wish to encourage Columbia in the no easy struggle of rebuilding a football school and traditions, I find it difficult to reconcile myself to the continual appearance on the team of some man or other who violates the spirit of college athletic law. If there is letter of law at Columbia which admits Mr. Loncon to the eleven, then that law should be speedily changed, for, with no intention of personal offense, I must say that playing him is an affront to the accepted standard of athletic ethics; he is in business downtown, and was a member of that notorious semi-professional Orange Athletic Club team.

But of all the eastern teams to have shown improvement, that of West Point is the most substantial, and the most pleasing to sportsmen who know under what difficulties the cadets of our two national academies play. The progress of Annapolis this season, while material, is less easy to gauge

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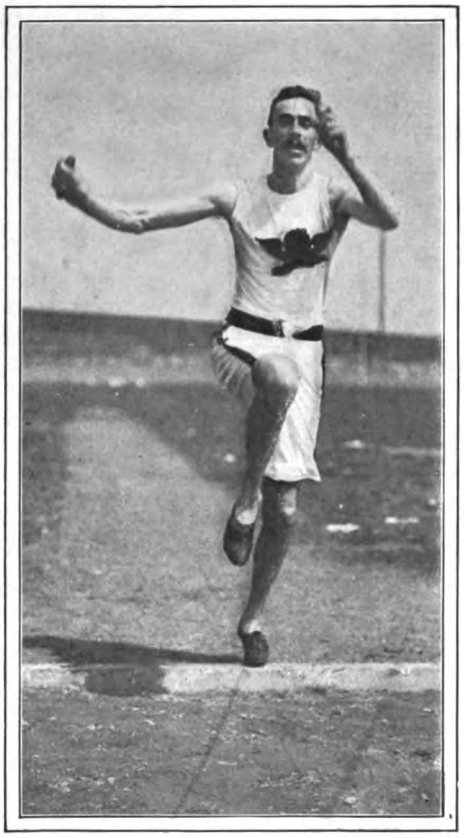

TAKING OFF.

IN MID-AIR.

The champion broad jumper of the world, Peter O'Connor, in action—record 24 ft., 11¾ in.

because they have not the opportunities of meeting the best teams, such as West Point enjoys. A part of West Point's excellent showing this year, must be attributed to cadet Daly, the ex-Harvard quarterback, who was appointed to the Academy early in the year. His experience and generalship, together with his individual playing qualities, have certainly strengthened West Point full fifteen per cent. At this writing, indeed, it looks to me as if the Army eleven this year, will rank fourth if it fulfils its present promise.

Annapolis is a good and improving team but handicapped as usual by geographical location, which lowers the quality of its practice game schedule, and by the comparative youth and light weight of its material; it has had better preliminary play this year, however, than heretofore. The victory over Pennsylvania was praiseworthy but [illegible] neutralized by the loss to Penn [illegible]rough indifferent play.

Cornell's new order of things appears to be working excellently and nothing short of thorough coaching and a betterment of the character of its game will enable Pennsylvania to enter the contest on Thanksgiving with equal chances of success. As I write it looks like a foregone conclusion for Cornell, which has not made the mistake this year of fitting its team for the Princeton rather than the Pennsylvania game. Princeton had a very narrow, indeed a very lucky escape.

Harvard-Yale-Princeton. The big games—Yale-Princeton and Harvard-Yale, will be over days before this paragraph reaches the public eye, but however the results, the contests are sure to be closer than last season for Yale has not a team of such well-distributed power as in 1900, while Princeton is a little stronger than a year ago, and Harvard though lacking as high-class players in.

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Photos by C. A. Slosson.

LANDING.

some positions, loses nothing in all-round strength, and will be, as it was not in 1900, in physical condition to play to the limit of its knowledge. Both Harvard and Princeton excel Yale in kicking, and Harvard has the most mobile and swiftest backfield in the country. Harvard is also stronger than Yale on the ends, equally as strong at tackle, but weaker in the center. Princeton is about as good on the ends, and weaker from tackle to tackle, De Witt excepted. Yale's backfield is perhaps stronger than Princeton's; yet Princeton has been handling the ball on kicks with greater certainty than either Yale or Harvard, both of whom have fumbled egregriously—Harvard losing a touchdown to Pennsylvania because of it. This will, of course, be remedied by both elevens. The power of Yale's center is of tremendous service in these days of premium on weight and brute force, for it not only has the requisite strength, but a considerable degree of activity and skill. Yale will have greater difficulty than last year in scoring, and the chances for her defeat by Harvard at Cambridge are more even than they have been for two years.

American Automobile Building. The most significant revelation of the recent New York Automobile Show was the substantial evidence it furnished of the really marvelous manufacturing activity which has sprung up in this country within the short period that has elapsed since the first show. At the present rate of development, it will not be long before America is independent of European designers and manufacturers; indeed it is a question if that day has not already arrived. France has been a leader in the gasolene motor car manufacture, especially of the many horse power, high speeding type, but only a few weeks ago the fastest time on record for one to six miles inclusive made by Fournier, the French chauffeur, was beaten by an American in an American-built machine—in other words by Alexander Winton in a Winton racer. Mr. Winton did one mile in 1.06 4-5 and six miles in 6.40 4-5. Fournier's figures were 1.07 3-5 and 6.47.

But these performances were as nothing compared with the startling speed at which Fournier and Messrs. Foxhall Keene, A. C. Bostwick and A. L. Riker succeeded in driving their respective machines over the Coney Island Boulevard, November 16th. Fournier made a straightaway mile, flying start, in 51 4-5 sec., Keene 54 2-5 sec. (both using French gasolene motor cars), Bostwick 56 2-5 sec. (American gasolene car), and Riker 1 min. 3 sec. (electric).

In the large heavy cars for rapid touring, the leadership of French manufacturers may not as yet be seriously disputed, perhaps largely because that kind of machine does not seem to appeal to Americans so much as the lighter, handier and less expensive variety. Naturally the manufacturers devote their ingenuity and energy to the type most in demand. Yet the heavy fast moving car is also receiving attention from the manufacturers. That the native product can be given speed Mr. Winton and Mr. Bostwick have proven and the New York show exhibited several equally as good to look upon as any of foreign make.

There is no doubt that in another year those who buy foreign machines will be governed by mere whim of taste rather than by any superiority of the imported

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article. At the same time that was rather a presumptuous and premature resolution which the Association of American Automobile Manufacturers adopted, criticising members of the Automobile Club who use foreign-made motor cars. A man's privilege to buy in whatsoever market he choose, is not to be foresworn because he uses a gasolene vehicle or even belongs to the Automobile Club of America. The native manufacturer need only concern himself with putting on the market the best machine for the money; trade will follow quality.

As yet there appears to be no departure from the prevailing shape of the common or garden automobile. Whether for town or country use they are still horseless carriages, built on the conventional lines, and unsightly. Only a single exhibitor at Madison Square Garden showed a—what may be called for better name—road type, which gave any suggestion in its shape of being a vehicle to be propelled by steam rather than one to be drawn by horses. Change in shape to conform to its machine character, is destined to come, and will come sooner or later. Just now manufacturers are busy with perfecting the driving machinery. Thus far the steam carriages have settled upon no satisfactory condenser, and the gasolene manufacturers are increasing the number of cylinders. Electric vehicles are being improved steadily and conspicuously—the storage battery being now nearly twice the capacity of the accepted strength last year. All three are tending to more of an equalization of the machine's weight on the two axles. The endurance test run to Rochester provided some valuable lessons which the manufacturers have profited by. Obviously the automobile is rapidly evolving from the experimental stage to that of practical utility.

Fairness to Speeding Automobilists.

It will be a great mistake in my judgment if, in the very proper agitation over limiting the speed of automobiles through towns and in cities, more generous license is not granted them on the open highways. It would be unwise as well as unfair to restrict the pace of motor cars on open country roads, to say ten or twelve miles the hour; unfair because no restriction is placed upon the pace of horses or bicycles, and unwise, because to so restrict the automobile is to retard its development as an advance on existing methods of road locomotion. Through finely adjusted steering gear and powerful brakes the motor car can, in experienced hands, be guided with greater safety to the public than anything on wheels drawn by horseflesh; therefore the injustice of singling it out for such legal restriction. In the city and in passing through a town the motor car's speed should rightfully be limited to ten or twelve miles the hour—but on the open country road legislation must be more in keeping with the requirements of the day, if it is to be respected.

But there is one law which should obtain in town and out of it, on the boulevard or open road—an automobile should be compelled to slow down, to stop, if need be, upon signal from the driver of restive horses. And this should be enforced under heavy penalty of law, for its disregard is productive of more accidents, and more prejudice against automobiles and automobilists, than all other grievances combined.

O'Connor, World's Champion Jumper.

Peter O'Connor, the Irishman who holds the world's running broad jump record of 24 feet 11¾ inches, returned to the land of his nativity several weeks ago without having altered local record tables or lost his amateur status, while exhibiting around New York. On the latter escape he is to be congratulated. Not many of the famous athletes whom Ireland has sent us have withstood metropolitan club temptations.

Although O'Connor broke no records while in America, his performances in his home season from May to August are sufficiently illustrative of his remarkable skill. His shortest jump was 23 ft. 8½ in., his longest 25ft. 5½ in., with a runway reported slightly down hill. Five times he has done 24 ft. or better, on three consecutive appearances doing 24 ft. 11¼ in., 24 ft. 11½ in., and 24 ft. 11¾ in., the last, his record, August 5, at Dublin.

From a grass take off he has done 23 ft. 10½ in., replacing the 23.3 of W. J. M. Newburn, another Irishman of noted athletic skill. O'Connor is no doubt equal to bettering his present figures, which is more than can be said of any other broad jumper known to the athletic world. Neither Kraenzlein nor Prinstein with records of 24.4½ and 23.8 met the Irishman while he was here, nor did they appear anxious to do so.

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Who will Design the next America's Cup Challenger?

Although no less than nine separate challenges for the *America's* Cup from as many different directions, have been heard of, none has as yet materialized. There are rumors of syndicates in Ireland, Canada, even in Germany, anxious to build a ninety-foot single-sticker, but when the time comes for a challenge to take definite form, it is more than likely that Sir Thomas Lipton will again be the sponsor. The perplexing phase of the question seems not so much who will challenge, as who will design the boat in case a challenge is issued. Mr. Watson has declared the *Shamrock II.* to be the culmination of his racing-yacht designing skill, that he cannot improve upon it, and will make no effort to do so; Mr. Fife, it is reported, has said he, too, would not attempt another ninety. Well, why must it be a ninety? Why not a seventy, or a schooner? The New York Yacht Club could not decline a challenge from Sir Thomas, with any one of these types. And Messrs. Watson and Fife are not the only designers in England; there is Mr. Sibbick, of Cowes, who designed the *Invader*, which last summer beat half a dozen boats especially designed and built for the occasion, and carried the *Canada's* Cup, international trophy of supremacy on the Great Lakes, back to the Dominion. As for Canada, there is Mr. George Duggan, who has no peer in designing small racers and might be equally successful with larger craft.

I doubt if there will be any ninety-foot racing next summer, even though *Shamrock II.* has been left on this side with that prospect in view. Racing these great single stickers is very expensive and exacts more time than even the most favored yachtsman can afford to give, save in cup years when everything is made subservient to the defence of the trophy. On that account it is more than likely that neither the *Columbia* nor *Constitution* will be put in commission in 1902 to race *Shamrock II.* 'Twould be good sport, but after all, determine nothing already not known.

Corinthian sailor men of smaller craft are active: The Yacht-Racing Union of the Great Lakes is working on new rules which will seek to check the tendency to construct mere racing machines; and the Royal Canadian Yacht Club of Montreal has accepted the challenge of Bridgeport Yacht Club to a race in August next on Canadian waters, for the famous Seawanhaka Challenge Cup for twenty-five-footers.

Abuse of the Small-Bore Rifle.

Despite its undoubted excellence and increasing popularity, there continues among experienced hunters, deep-seated objection to the use of the small-bore rifle by the majority of men who seek the mountains and plains to kill "something." I print an excerpt from a very interesting letter on the subject which appeared recently in *Land and Water* over the signature of a British army officer in India.

"For the last seventeen years I have had considerable experience in game shooting in both India and Africa, and I have come to the conclusion that if shooting is continued in the way it is now with small-bore (magazine) rifles, viz., Mauser, Mannlicher, and Lee-Metford, the larger kind of antelope, etc., in accessible places will soon become extinct. It is to the abuse of these rifles that I object, and I speak from personal experience. Nearly every man who comes to Africa nowadays is armed with one of the above on account of their cheapness, lightness, and the facility with which ammunition may be carried and obtained; and they fire at all kinds of big game regardless of distance, and wound at least two for every one they kill. Very often a man misses his shot; he then empties his magazine after the retiring herd, probably wounding one or more but very rarely killing except by a fluke.

Now if these men were armed with a fairly heavy double or single-barreled rifle, they would be more careful in their stalk and try to get close to the animal before firing. Then if they hit they would probably get the beast and there would be no temptation to empty the magazine after him. I myself was out not long ago with a young officer armed with a .303 rifle with which he killed three large antelope. All required from two to nine shots and he also wounded four which got away.

This comment is not intended to apply to experienced sportsmen who, I fully believe, can kill, and do kill game with small bores, but it is intended for the inexperienced and beginners, and the latter are certainly in the majority in northern, eastern, and central Africa at the present time.

The remedies I would suggest are that—1, no game larger than gazelle be shot with a rifle of less than 500 bore in an express or more than 350 bore in the cordite (new game rifles); 2, that no magazine rifle be used for game shooting; 3, that telescopic sights be not permitted for game shooting; 4, that a heavy fine be instituted for anyone buying heads or skins from natives.

These could be easily carried out wherever permits and licenses have to be obtained for big game shooting by inserting the above c

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ditions in the permits and licenses; and in most places, certainly in Africa, such licenses have to be obtained now.

There is not, I am sure, a wilderness hunter in the land who will fail to indorse the sentiment of this officer. The small-bore rifle, like the repeating shotgun, is an instrument of indiscriminate destruction in the hands of the inexperienced, or the wanton; at the same time neither gun nor rifle is to be condemned for those qualified to use it: to do so would be equally as sensible as to issue an edict against going afield, because now and then some dolt, who never should have strayed from trolley cars and lettered street signs, kills a companion in mistake for a deer or a duck, or a railbird, forsooth.

Personally, I have always been opposed to the use of telescopes as being neither sportsmanly in the man nor fair to the quarry. In America there is no opportunity for their use except occasionally after sheep, goat, or antelope, and no sportsmen of my acquaintance employ such aid even when the chance offers. If a hunter can't get near enough to his game for a fair shot, he has no business in the field; he should join that class of "hunters" who rely upon the guide for all the required skill of the stalk, and merely press trigger when the rifle is put into their hands and the beast pointed out within easy range. While a good hunter should be at least a fair shot, mere marksmanship alone does not by any means make the hunter.

In this country where rifle license for the greater part is not demanded, abuse of the small-bore and magazine gun can only be checked by the building up of a sportsmanly sentiment through such organizations of sportsmen as the Boone and Crockett Club and the League of American Sportsmen, and where such sentiment is created it is more exacting than legal process could ever be. The true sportsman does not seek a multitude of small trophies, but one better than his best; therefore, except when the camp needs meat, inferior heads should be left to grow and not killed.

Protection in East Africa.

It is gratifying to learn from the report of Sir Charles Eliot that the conditions of the East Africa Protectorate, are hopeful of this vast game refuge being successfully safeguarded. And a vast one it is, extending from the Uganda railway to German East Africa and the Tsavo River—an area of over 12,000 square miles with an elevation ranging from 2000 to 7000 feet above the sea level. Although the great herds of wild beasts which Gordon Cumming and Livingstone met in southern Africa, will never again be equalled, yet it is said that perhaps there is to-day no place in the world where such an abundance of large animals can be seen as on the Athi plains in this region. Here are zebra, hartebeest and wildebeest in considerable herds, and giraffe, lion, rhinoceros and elephants, abundant despite the fatal rinderpest which so entirely swept Africa. As the preserve offers every type of country from dense jungle to open plains, it is well adapted for all kinds of mammals great and small. That the game is not confined to the heart of the preserve, is suggested by the tragedy, not long ago, of a sportsman dragged by a lion out of a railway car in which he was sleeping and killed.

The Bicycle a Recreative Fixture.

Whatever the decline in bicycling may be in New York City, with its disrupted streets, there is abundant and growing evidence abroad in the native land, of the wheel's popularity among those who are not influenced by every passing whim. When to ride a safety was a more or less unusual accomplishment, it appealed to those always seeking new sensations, and became a fad. It had its day as a fad when that inconstant class shifted elsewhere in search of a newer plaything. But appreciation of the bicycle had only begun with those whose support counts for something. In the last three years evidence of its permanent position has been accumulating, and we now know it for a fixture in whatever household its qualities have been tested.

Bicycle riding has decreased in the cities, but in the country it continues one of the most enjoyable forms of recreation.

Interest in Bicycle Racing Returning.

Mr. A. G. Batchelder, chairman of the Board of Control of the National Cycling Association, has had no easier task in keeping distinct the classes of amateur and professional riders than had the old Racing Board of the League of American Wheelmen, yet the L. A. W. Board failed, utterly, whereas Mr. Batchel-

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der's success has been marked and almost invariable. The explanation is to be found not in difference of method, but in difference of spirit. The Association realizes that its prosperity, life itself, depends on its sport being conducted on unequivocal lines, and the ethical status of its racers—unmistakable. The L. A. W.'s Racing Board heart was unhealthful, and its head weak—the Association is strong in both organs. The season closing has shown a return of interest to bicycle racing and I have no doubt 1902 will bring well-merited prosperity to the present governing body. Certainly there is no sport more interesting, and none more attractive to the people if they be assured of its clean bill of health.

Prohibit Sale of Game. After personal inspection of the status of game protection in the states of the Union, I have come to the conclusion that the only practical course is one absolutely prohibiting the sale of all game. I have not always been convinced of the wisdom of so radical a step, rather advocating fully protective laws, honestly enforced. I do still believe such to be the better course where the enforcement of the laws may be depended upon. But politics play so important a part and exercise so corrupting an influence in game legislation that the honest carrying out of such protective measures cannot apparently be depended upon. When we see a taxidermist with a shop in the State made game warden of Wyoming, and the Lieutenant-Governor (Timothy Woodruff) of New York, killing game out of season, we may be prepared for almost anything.

Therefore, I join the ranks of those who advocate that the meat of no game bird or game animal shall be permitted to be on sale; and I shall use my utmost and unceasing endeavors to bring the fight for such universal legislation to successful issue. No sale of game is the watchword of the League of American Sportsmen and a large number of thinking sportsmen; it shall be mine henceforth.

Partridges Dying in England. England is just now suffering from overstocking of its partridge and pheasant preserves, and the birds are reported dying in large numbers. It is well known to sportsmen who have given the subject study, that only a given head of game can be kept in health on a given space, no matter how much you feed them. Where the shooting, as in England, is done so largely over artificially stocked preserves, the birds cannot be kept at their highest level all through the year without dire results and a lessened subsequent supply for the guns. Game cannot be turned out like pig iron.

England's present game trouble is too many birds left over at the end of last season, which added to this year's normal increase have overstocked the estates and resulted in the usual fatal diseases.

Prairie Chicken's Last Chance. Game has been fairly plentiful in America this season, not noticeably more so in the aggregate than in recent years, but moderately so in sections where formerly it was scarce. All of which indicates that the sentiment for protection is not only bearing fruitful results, but is spreading. And nothing could be more satisfactory. Moose and deer also show evidences of the broadening spirit of preservation rather than slaughter. One of the most convincing illustrations of the return of animals to unmolested sections, is the comparatively recent appearance of beaver in Virginia!

Illinois is to be condoled with; what with the legislature, through the stupidity of a clerk, removing protection from quail, and the opening of the prairie-chicken season advanced to September 1, the season has not been a comforting one to local sportsmen. The quail have not suffered much owing to the activity of the clubs and the influence of sportsmen, but nothing will save the fast disappearing prairie chickens, if the present law is not changed. To allow shooting when the chicks are but half grown, is to certainly show small consideration for this already nearly killed off game bird.

"One local sportsman succeeded in killing a black bear which weighed about 150 pounds, with *two loads of fine shot*."—R. J. Welton, Catawba, Wis., in *American Field*.

It is astonishing enough that a man should use shot to kill bear or any animal; more so that another should write of it as praiseworthy, and more amazing yet, that a sportsman's publication should print it without the rebuke such unsportsmanly conduct deserves.

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North American Mammals. The making of new species seems likely in numbers to rival the making of new books. Every now and again a "discovery" is brought to light by the many ambitious and talented naturalists who are constantly in the field, but it is no reflection on the quality of professional ability employed to say, that some of these new species are distinctive chiefly in name. Take, for example, the caribou—I suppose no wild creature is more productive in new species to the searching naturalist than this one, because there is none which contains so many variations among individuals. Already several new species have been put forward, and I have no doubt others will follow. But while they may vary individually, one way and another, it remains to be decided, by a concourse of scientists, if such variation is sufficient to stamp them new species. Professor D. G. Elliot, of the Field Columbian Museum (Chicago), says, that distinct species are not to be determined by mere variety in shape of antlers or in color of hair.

When in the Barren Grounds I was very much impressed with the great variety in antlers and in coloration to be seen in one and the same herd of caribou. The variety was so considerable as to be puzzling. There is no member of the deer family which shows so many shapes of antlers, or so many shades in the hair; on either line one might argue out several new species in almost any herd encountered. Professor Elliot has recently published, as one of the zoölogical series of his museum, a Synopsis of the Mammals of North America, which is the most complete work of its kind that I have seen. It shows a tremendous amount of painstaking research, as well as original learning, for the author is not only a scientist, but a sportsman as well. The volume has about one hundred illustrations, which are highly instructive, and the work indicates what a lot is being done unostentatiously in this country by a handful of men concerned in biological research.

International Congress of Sportsmen. We have our Pan-American Congresses and Peace Conferences at Hague, but no conference would find more real differences to adjust than one composed of sportsmen gathered from the four ·ds of the world. There is great need of an International Congress of Sportsmen, one that shall have the recognition of the home governments of the respective delegates. And this means that the movement to such a conference must be undertaken by organizations which in their influence and personnel have national significance. A worthy attempt was made a year or so ago to have such an international meeting in Canada, and so far as it went it was successful, but its acts lacked influence because few nations were represented and the delegates were without official stamp of their country's backing. Properly fathered it is entirely possible to organize a conference that shall have national recognition—without which support nothing can be accomplished abroad.

We want a meeting of the minds of sportsmen from America, Canada, Great Britain, France, Germany, Italy, Spain—to settle upon a universal definition of an amateur in athletics, trap shooting, yachting; but especially to agree upon a cessation of shooting wild fowl, quail, woodcock and other game birds during their mating and breeding seasons. Right at home we have painful illustration of the havoc making among our ducks, where spring shooting of them is permitted, and of the devastation of quail on their breeding grounds, because of conflicting county or state laws. In England quail have become so scarce as to be on the verge of extinction, because they are netted for the markets in the spring along the Mediterranean coast, when on their passage from North Africa to the summer haunts in Europe. Such wholesale destruction of these birds on the eve of the nesting should be checked by international law. And woodcock should be similarly protected from the slaughter visited upon them every spring in Germany. The greed of men who shoot birds while they are mating and nesting, is incomprehensible, and not amenable to logic; it can only be reached by stress of the law.

Range of Musk Oxen Commenting not long ago on the mistaken belief that musk oxen have recently existed in the extreme Western Arctic America, I quoted Mr. A. J. Stone as saying "there are none in any part of Arctic America," whereas the important words "west of the Mackenzie River" should have been added, and were in the original, but lost in the makeup of the page and overlooked.

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UNIVERSITY FOOTBALL

AT this writing (November 11th) the season has advanced to its final stage, and two of the most important games of the season have been fought and won, viz:—Harvard-Pennsylvania and Princeton-Cornell. The principle of heavy weight onslaughts from back of the line seems now to have extended to all the teams and the guards-back and tackle-back formations are commonly employed, perhaps less at Princeton than elsewhere.

HARVARD'S development was seriously marred in October by injuries, but after the 26th the team came fast. Against West Point the line was made up chiefly of green men and there was no semblance of combination play. The only score came thirty seconds prior to the end of the game, when Kernan went inside West Point's left end and was missed by Daly in a disgracefully poor tackle. Against the Carlisle Indians and the unusually weak Brown team Harvard had no difficulty in running up high scores, due chiefly to brilliant end runs and individual work. With the rapid development of the new tackles, Cutts and Blagden (the former of whom, however, is a veteran with previous college experience) and the return of the other five line men to 'Varsity form, Harvard's most serious menace was removed. The team is fast and strong, and its most serious disadvantage thus far has been the absence of strenuous opposition. Marshall, '04, has fairly outdone his rivals for quarter-back, and Ristine and Kernan, or Putnam, make a brace of backs rather better than those of former years. With Graydon, a heavy full-back of the new type, they constitute a quartette not surpassed in any of the colleges. Graydon keeps his feet grandly, sweeps his tacklers before him for yards and in the Pennsylvania game showed form equal to that of Perry Hale or McCracken in 1900. The team are good fighters, with every man helping, hence their attack is more formidable than last year's. In the Pennsylvania game their rushing brought 268 yards gain in the first half and 123 in the second; while they secured their first down 23 times in the first half and 17 in the second.

PENNSYLVANIA gained in rushing but 39 yards in the first half and 28 in the second, and secured her first down but three times throughout the game. Her line averaged fifteen pounds per man lighter than Harvard, and her team was not nearly so well trained. The men were poor in tackling, and in blocking, especially in protecting the runner back of punts, and in the Columbia game some of them went into the line backward and almost erect. The team has given preference this year to more open play, as her heaviest four men, though equal to McCracken's weight and only a little lighter than Hare, are decidedly below them in ability. Harvard, on the other hand, has taken up the guards-back play and is executing it with as deadly effect as ever did Pennsylvania. There is this difference, however; with Harvard the guards-back principle is only one of several means to the same end, and the team is also well grounded in the rudiments and has a definite, carefully considered plan of defense, while the Pennsylvania teams, as such, have been notoriously deficient in these very particulars.

PRINCETON'S coaches had a difficult task at the opening of the season, but they have builded wisely and well. Of the men left over from last year, the majority needed coaching in the rudiments of football quite as much as did the new men, and to this work the coaches devoted almost all of the month of October. The result is the development of an unusually well-informed squad, however the season may eventuate. When the eleven faced the exceptionally strong Lafayette team on the 26th, it was to learn its first lessons in withstanding fierce attack and verily its instruction came hard and fast. Lafayette's best play was a guards-back formation, differing little from the Yale tackle-back play, but with an admirably executed delayed-pass attachment, in which the last man carried the ball and shot over the scrimmage.

The tendency to keep coming has marked the work of the Princeton team throughout the fall and was as pronounced against Cornell as against Lafayette. Princeton was heavier but Cornell faster, and for twenty minutes of the first half, Princeton was decidedly outplayed. After that, however, the eleven found itself, and quite reversed the situation, except as to punting, in which Cornell excelled. In the second half Princeton rushed the ball 200 yards to Cornell's 65.

YALE'S annual slump came the last wee October, after a preliminary season which the best of all the teams. Her play up to

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COLUMBIA.

5 Yale, 10
29 Haverford, 6
11 Pennsylvania, 0
5 Syracuse, 11
0 Cornell, 24

CORNELL.

17 Indians, 0
29 Oberlin, 0
6 Princeton, 8
24 Columbia, 0

PENNSYLVANIA.

20 Virginia, 5
6 Bucknell, 0
5 Annapolis, 6
11 Chicago, 0
6 Harvard, 33
16 Indians, 14

ANNAPOLIS.

18 Lehigh, 0
6 Pennsylvania, 5
6 Penn State, 11
16 Indians, 5
17 Wash. & Jef., 11

Amherst, 0, Union, 0; Dartmouth, 6, Williams, 2; Amherst, 0, Trinity, 0; Lafayette, 26, Lehigh, 0; Williams, 33, Hamilton, 0; Dartmouth, 29, Wesleyan, 12; Syracuse, 11, Columbia, 5; Williams, 11, Wesleyan, 5; Lafayette, 11, Brown, 6; Michigan, 29, Northwestern, 0; Michigan, , Indians, ; Wisconsin, 23, Knox, 5; Wisconsin, 50, Kansas, 0; Illinois, 24, Chicago, 0; Northwestern, 17, Illinois, 11; Iowa, 23, Knox, 6; Illinois, 27, Iowa, 0; Minnesota, 16, Iowa, 0; Northwestern, 6, Chicago, 5; Nebraska, 51, Missouri, 0; California, 2, Stanford, 0; Minnesota, 10, North Dakota, 0; Williams, 21, Amherst, 5; Wesleyan, 11, Trinity, 0; Brown, 24, Union, 5; Georgetown, 17, Virginia, 16; Iowa, 17, Grinnell, 11; Wisconsin, 18, Minnesota, 0; Vanderbilt, 0, Sewanee, 0; Tennessee, 12, Georgetown, 0; Michigan, 22; Chicago, 0; Penn State, 40, Lehigh, 0; Notre Dame, 18, Indiana, 15; Northwestern, 11, Beloit, 11; North Carolina, 30, A. & M., 0; Alabama, 45, A. & M. (Miss.), 0.

CHARLES E. PATTERSON.

THE GAME FIELD

AT the time of this writing, with the end of the open season for upland game of the North close at hand, the majority of sportsmen have cause to feel content. Taken as a whole the sport of this year has been unusually good. There were, as there must ever be, localities which proved disappointing, but these partial failures were mainly due to purely local causes. I cannot recall a year which has shown more united or more intelligent effort on the part of sportsmen to uphold the law, and the good effects of such effort assuredly will become apparent later on. Where has been the greatest activity in behalf of clean sport, there the best of sport has been enjoyed. Nor is this the result of accident, but the natural and sure reward of intelligent and vigorous effort guided by sound common sense. I have many correspondents in the Northeast, Middle West, and West, and it is a true and fair statement that fully two-thirds of these are well satisfied with present conditions and hopeful for the future. There is, however, at least one discordant note and, strange to say, it comes from the glorious State of California. Just why this should be I fail to understand, but clearly there is trouble afoot a few days tramp within the Golden Gate. We of the East have long cherished the idea that there was a manly breadth and thoroughness picturesquely woven through the fabric of Californian sportsmanship which surely would bring that richly endowed State to the front as a shining example of what the best of American sport should be. It seems, however, that distance has, as usual, lent enchantment, for California appears to have troubles of her own. 'Tis true, 'tis pity, and pity 'tis, for that State has no excuse for not profiting by the somewhat bitter experiences of her elder sisters. It is far from my desire to question the sportsmanship of the host of stalwarts who have helped to make California what she is, yet it does seem too bad that she, with all her magnificent opportunities, with a quantity and variety of game sufficient to make any state famous, should fail to appreciate its great value and the absolute necessity for wise and rigidly enforced protective measures.

Ah! this game question—the everlasting misunderstanding of it by the many and the valiant struggling for the right by the devoted few. More often than our readers dream, do we toiling scribes feel like throwing down the pen and damning our Herculean task enthusiastically and thoroughly. Then arises the recollection of the glorious days afield, of the priceless privileges of our past, and we buckle to our task again determined to save some of the fun we knew for the Yankee sportsmen to be, who are now but sturdy toddlers. We know—aye! and well we know, what the vigorous sportsmanship of our fathers has done for the good of the race. Looking backward we can clearly see how we benefited by the hardwon trail; by the plain, wholesome fare; by the purity of the outdoor life; how was won that confident self-reliance and resourcefulness, the invaluable characteristic of the young American of to-day; and with these facts in mind, is it strange that we should watch the welfare of our game jealous eye?

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"Preserve, protect, propagate"—the words might form the text for a rousing sermon. Will it *pay*—all this trouble about game? one might ask I would answer him Yankee fashion. Does it pay in the case of game fish? Is there any sense of having state hatcheries—in rearing and planting fry—in restocking erstwhile depleted streams? Does the merchant of the village beside the restocked stream, or the hotel-keeper, or the liveryman or the local guide, realize the value, direct and important, of nearby fishing? He don't care anything about it—did you say? Then why does he bait his business hook with the printed and expensive statement that there is fishing to be had near his place of business? What would he demand of you if you as plainly advertised that there was absolutely no fishing within a day's journey of his place? What has been proved true of fishing, may, and I hope will, be proved in connection with shooting. Maine and the Adirondacks are notable examples of the value of wise legislation well enforced. Suppose the owner of a large country hotel could truthfully advertise the fact that he could guarantee every guest fifteen or more shots per day at quail, grouse, cock, snipe, shorebirds, waterfowl, or even rabbits, or squirrels—would he do business? After the first lot of men had gone home and told their tale of bliss, New York city alone would furnish more business than ten hotels could handle. Yet few of the men most interested appear to have sound views upon protection, but openly or secretly encourage illegal work, despite the fact that in so doing they assist in the killing of the fowl which lays the golden egg.

Recent accounts from Alaska tell the old disgusting story of wanton destruction of big game. It would almost appear that the shameful record of the great plains was to be repeated in the northern territory, which if rightly guarded might prove an invaluable game preserve for many years to come. Shall what certainly is the best big game country of North America—the home of the grandest bear, moose and caribou ever seen—be ruined in a few years, for the want of reasonable laws enforced as they should be? The question is [illegible]ant one, for there are no more Alaskas [illegible]ited. The last great stronghold [illegible] game has been attacked. Shall [illegible]ile we may?

Sportsmen have learned to appreciate that excellent feature of the Connecticut law, under which the season for all upland game birds opens on the same day. Men who have the best interests of the game at heart, now suggest the shortening of the open season by a full month, making the opening day November 1, instead of October 1. This would leave an open season of two months—which in my opinion would be ample for such easily reached grounds. It is true, such a season would cut off some of the woodcock shooting, but in nine out of ten seasons the cream of the cock shooting comes after November 1.

Complaints from Rhode Island indicate a considerable amount of snaring by lawless individuals. The full legal prescription administered at every opportunity is the only reliable remedy.

A party of seven New Englanders are credited (?), or discredited, with a bag of 426 plover and sandpipers and a teal, for one day's shooting. This is the story of a Boston paper, which, if true, goes far to explain why the game of that part of the country is considered to be among the has beens.

One of the most powerful allies of the pothunter and snarer, as in the case of the thief, is the receiver, or fence, for without him there would be "nothing doing." The Fagin of them all, dwells, I regret to say, right here on Manhattan Island and does business under the name and style of Cold Storage and Co. Let the grip of the law once firmly close upon his collar, and his bright boys of the back country will cease from troubling—perhaps even go to work.

Now is the time, at the close of a good season with a fine head of birds left, for sportsmen to make all needed preparations for the winter care of the quail. No man can foretell what may happen.—we may have an open winter, or a worst on record. A fine fall is frequently followed by a winter of unusual severity. In time of peace prepare for war. Meet together, gentlemen, lay out your districts, place the right men in charge and act when the time comes. So shall ye have quail next year.

Edwyn Sandys.

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AMERICAN SALMON AND CHARR TROUTS

THERE seems to be, even among those who should know better, a lack of knowledge as to the proper technical classification of the salmon trouts. This phrasing, perhaps rather abrupt, is called forth by a letter recently received at the OUTING office from a fish culturist in the West, to wit:

* * * "I note also, that your Mr. Harris, in his paper on angling in your May number, page 346, classes the black-spotted mountain trout as a 'salmon trout,' when Jordan, Gilbert, and Dr. Tarleton H. Beam, all ichthyologists, name them *Salmo mykiss*, cut-throat, or mountain trout."

The trouts, popularly so-called, of America are of two kinds: The salmon trout (*salmo*), and the charr trout (*Salvelinus*); the great lake trout (*cristivomer*), called by many fishermen a "salmon trout," being a big charr trout. This classification, endorsed by the leading ichthyologists of America, including those named by our correspondent, is based upon anatomical differences of structure in the two genera, mainly, however, in the arrangement and location of the teeth.

The native salmon trout, with their many varietal forms, number twenty-five, and the charr trouts, including the great lake trout, aggregate thirteen. These two generic forms are distinguished from each other, primarily, by the teeth, as above stated. In the salmon trout teeth are found on the flat roof (*vomer*) of the mouth, in alternate or in one zigzag row. The teeth of the charr trouts do not appear on the vomer except at its head, and on the hyoid bone, which supports the base of the tongue, there is a series of very weak teeth and sometimes none when the fish is advanced in age.

No species of native American salmon trouts have red or reddish spots upon the body, and all the charr trouts (except the great lake trout, upon which the spots are grayish), have them, unless another exception may be found in an arctic species of which, however, only alcoholic specimens exist, and under the influence of this spirit, coloration of a trout fades rapidly.

The angler if in doubt as to the proper generic status of his trout, has only to put his finger in the mouth of the fish, and, if a single or double row of teeth are found on the front part of the roof, he holds in his hands a salmon trout; if only a single patch exists in the rear of the mouth, on the base of the tongue, he has a charr trout under inspection. The reddish spots on the charrs and the absence of them on the salmon trouts will, on sight, differentiate the two fish. There are many other structural differences between these genera, but the above noted will doubtless be sufficient for the angling layman to intelligently classify them.

One of the common local names of the black spotted or cut-throat trout (technically classed as *Salmo clarkii*, not *Salmo mykiss* as our correspondent has it), is that of "salmon trout," and this popular nomenclature is not confined to this fish. All over the United States, from the Atlantic to the Pacific coast, a salmon trout or charr of unusual size bears the vernacular and local name of "salmon trout. These popular names and their growth in numbers, lead to confusion in the identity of species, and has, doubtless, led our correspondent into error, being ignorant of the authorized technical differentiation of the salmon trouts and the charr trouts. In this connection it may be well to note that American ichthyologists have recently shown a disposition to reduce the many species and sub-species of the black-spotted or cut-throat trout, and those of the rainbow and steelhead series into one polymorphic genus and the present confusing classification of twenty-five varietal forms of these fishes, with their jaw-breaking scientific appellations will, probably, soon disappear, or be reduced in number, with the entire approval and thanks of the angling layman and the sportsman-naturalist.

There are no indigenous charr trouts living in waters of the Rocky Mountains, except the Dolly Varden and the great lake trout which is found in Alaska, although our eastern red-spotted trout is being rapidly introduced in that section and a constant reciprocal interchange is at present existing, through which the waters of the East, particularly those east of the Mississippi, are being stocked with the western salmon trouts, especially the cut-throat (*clarkii*).

The rainbow trout from the McCloud River, California, were planted by Seth Green in New York waters twenty-five years ago.

All of the salmon trouts are, more or less, black spotted, the spots being distributed in clusters or indiscriminately all over the body, except those that are sea run, which are uniformly silvery, the spots having disappeared during their sojourn in the ocean.

WM. C. HARRIS.

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Flowers and Ferns and Their Haunts. By Mabel Osgood Wright, with illustrations from photographs by the author and J. Horace McFarland. The MacMillan Co.

THIS is a veritable treasure house of the wild flowers and ferns. From the coming of spring when the fern first breaks the sod, through all the season when the wild flowers parti-color nature's palette, and onward to the aftermath of seed pods and sienna-colored stalks, it illustrates in landscape photography the wild flowers and ferns; and gives the details of them by artistic redrawings. From introduction to index it is a sterling publication worthy the highest commendation.

The Book of Sport. Edited by William Patten, with twenty-three contributors and upwards of three hundred illustrations. Edition limited. J. F. Taylor & Co.

MECHANICALLY this is a very handsome book—the most ornate to have been published, with wide margins, clear large type and a profusion of very attractive and well chosen illustrations, many of them especially taken. The volume touches upon golf for men and women; court tennis, racquets, fives and squash tennis; polo; fox and drag hunting; coaching; automobiling; lawn-tennis and yachting. The feature of the book is its illustrations, but next to that in importance is the editor's choice of a practical player as the author of every chapter. But unfortunately the authors have worked on individual lines with no apparent regard for the volume as a completed whole; thus some of them touch upon the game's history, others are critical, and others again deal almost entirely with personalities. So it is that because of such haphazard untutored compilation, the book becomes largely a volume of personalities and opinionated papers, which, however interesting to the few concerned, interrupt its taking place with the literature of sport. It is a genuine regret that the permanent value of so handsome a book should have been lessened by incompleteness and the local and more or less ephemeral character of its articles.

There are some papers in the book which are both important and good reading, notably that on Polo in America, by John E. Cowdin; Automobiles and Automobiling, by Albert C. Bostwick; The Theory of Play in Modern Lawn-Tennis, by Malcolm D. Whitman; Coaching, by Oliver H. P. Belmont. Miss Underhill, one time champion, has a lengthy history of the American woman's golf, but a strange omission from the book is anything concerning women in lawn-tennis at which they have done very much more worth writing about.

As a portrait gallery of the wealthy patrons and the prominent players of the games included in the book, the volume is the completest and best looking thing yet to have been published.

The Home Life of Wild Birds. A new method of the study and photography of birds. By Francis Hobart Herrick, with 141 original photographs from nature by the author. G. P. Putnam's Sons.

MR. HERRICK has gone to nature, the fountain head, for his home life of birds. Availing himself of the well-known maternal instinct which impels the parent birds to follow a removed nest, he has taken the latter to an open space where, concealed inside his photographic tent, he has recorded on the photographic film every detail from hour to hour and day to day of the nest life of the family. The result is such a pictorial record as bird lovers have never before had. The observations were made mainly in central New Hampshire, but the principle is capable of indefinite extension.

The Lovers of the Woods. By William H. Boardman. McClure, Phillips & Co.

THERE is much woodcraft of a good class, given in this story of an invalid entrusted to an Adirondack guide; and the charm of the book is the unpretentiousness of the author, who gives of his knowledge in a very informal way. It is entertaining as well as instructive.

Everyday Birds. Elementary Studies. By Bradford Torrey, with twelve illustrations in colors after Audubon, and two from photographs. Houghton, Mifflin & Co.

THROUGH the woods with spy-glass and note-book Mr. Torrey has wandered from boyhood, and he tells other boys, young and old, where to find and how to recognize everyday birds. The text is materially supplemented by colored plates after Audubon.

OTHER BOOKS RECEIVED.

The Tenth Island. An account of Newfoundland. By Beckles Wilson.
M. F. Mansfield & Co., N. Y.

The Joys of Sport. By W. Y. Stevenson. Illustrated by G. R. Brill.
Henry Altemus Co., Phila.

The Cruise of the Petrel. A story of 1812. By T. Jenkins Hains.
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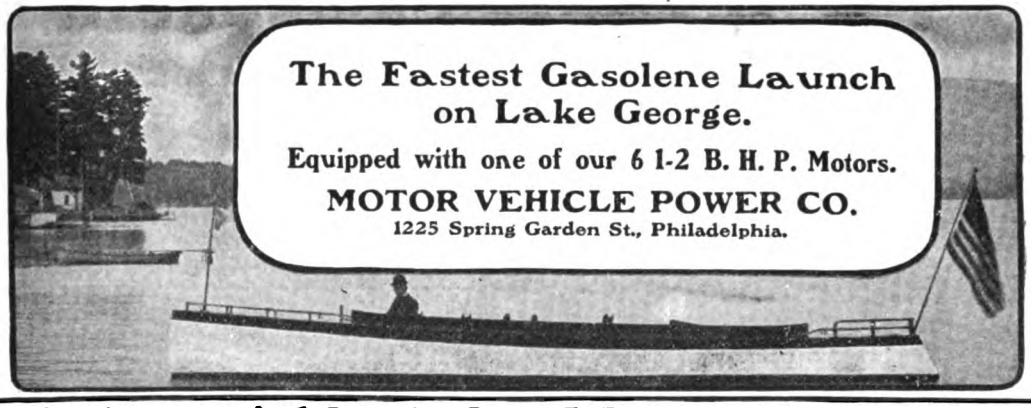

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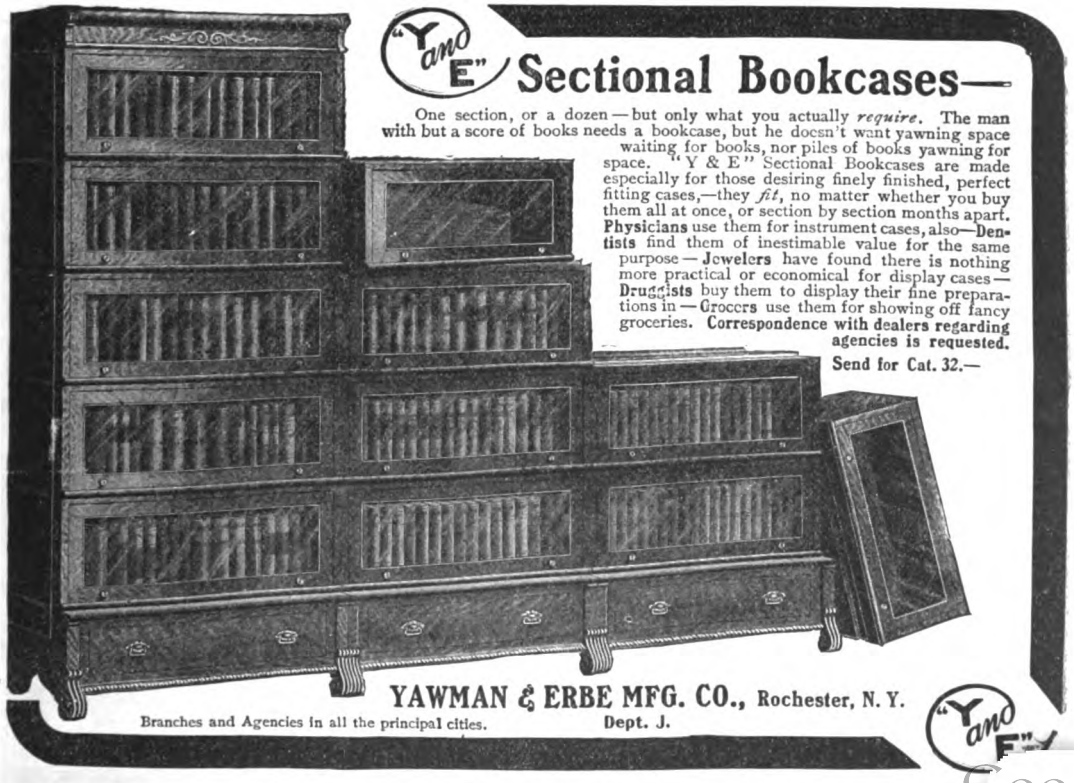

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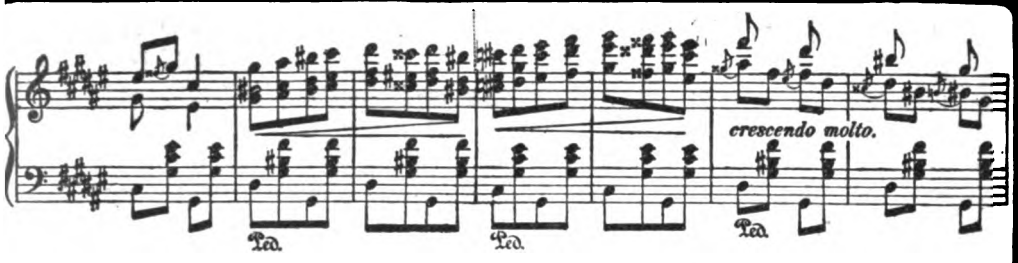

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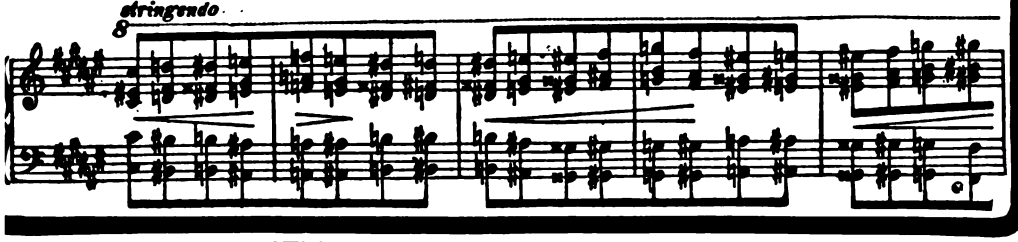

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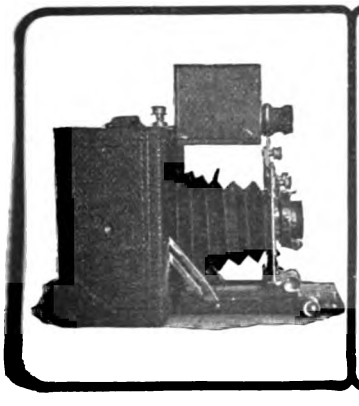

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yet requires no dark-room for development. Gives pure black and white prints of surpassing depth and richness.

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Division of the General Aristo Co.
NEPERA PARK, N. Y.

For sale by all dealers.

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A Kodak Christmas *is the* Merriest Christmas.

Amid the festivities of Christmas-tide one often finds the greatest charm of picture taking. The children, the children's tree, the visit at the old home, the flash-light at an evening gathering, the merry sleighing party, the home portraits of one's friends—all these offer subjects that have a personal interest, that one cherishes more highly as the years go by.

"KODAK" stands for all that is Best in Photography.

Kodaks, $5.00 to $75.00.
Brownie Cameras, $1.00 to $2.00.

Christmas Booklet Free at the Dealers or by Mail.

EASTMAN KODAK CO.
Rochester, N. Y.

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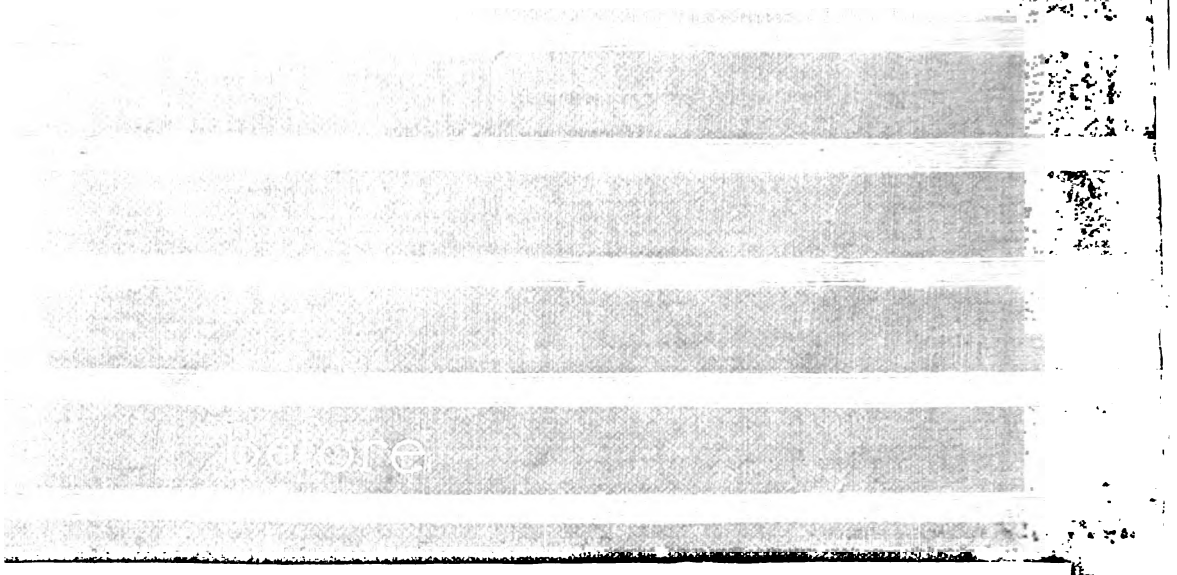


Who Fears Pearline

For Colored Wash Fabrics, Fine Ginghams, Etc.

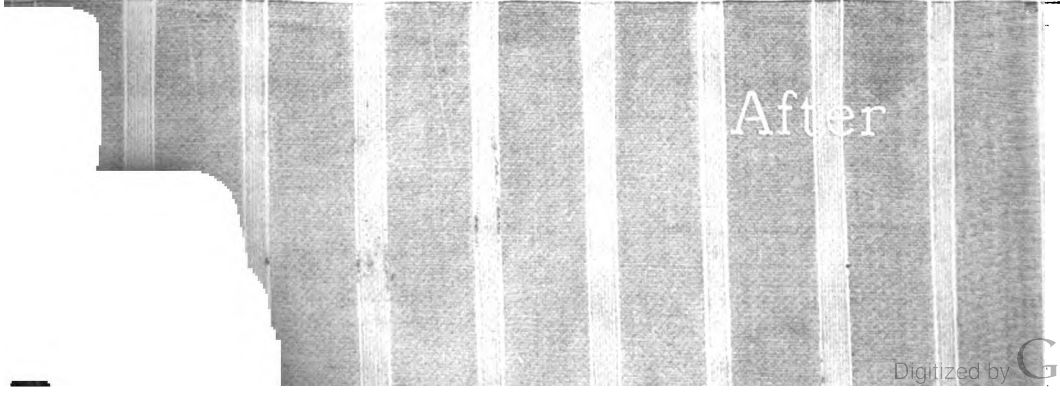
Risk 1440 Times

as great as that of an ordinary PEARLINE wash.

The piece marked "after" was cut from the same goods (celebrated "Whytlaw's Wash Fabrics") as that marked "before," and was then soaked for forty hours in a solution of PEARLINE and water, almost hot to begin with and twelve times as strong in PEARLINE as the suds prescribed in PEARLINE directions.

THE RESULT: Both pieces were photographed side by side. An expert cannot detect any loss or deterioration of color or fabric—there isn't any. The ever-truthful camera would reveal any loss or injury; however, if any doubt remain, try some scraps of goods for yourself.

Pearline restores some faded colors.



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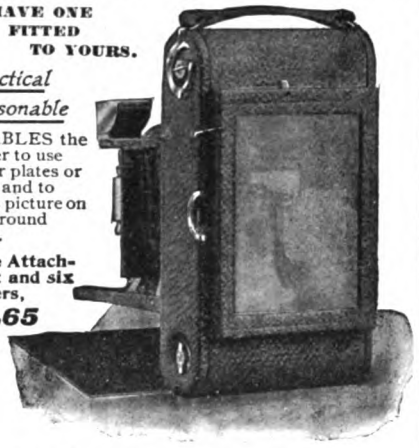
A Plate Attachment for No. 3 Folding Pocket Kodak

HAVE ONE FITTED TO YOURS.

Practical
Reasonable

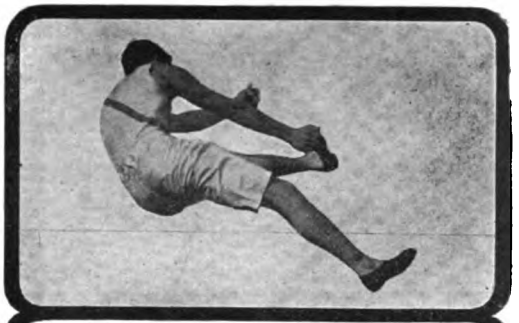
ENABLES the owner to use either plates or films and to focus picture on the ground glass.

Plate Attachment and six holders, $7.65 net.



Write for further information to your dealer or to

C. P. GOERZ OPTICAL WORKS
52 E. Union Square, New York

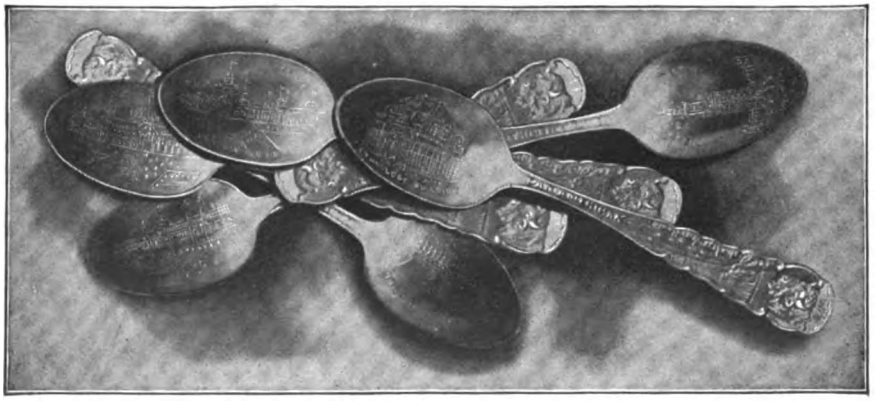


Bausch & Lomb Plastigmat f-6.8

The Perfect Photo Lens, as the above picture made with it shows, is fast enough for the fastest work, and in addition, has the proper length of focus for the best pictorial results, the highest optical corrections and either combination may be used separately for long distance or portrait photography. Booklet with five difficult pictures mailed free. Buy your camera with it. Buy it for your camera.

Bausch & Lomb Optical Co.

New York ROCHESTER, N. Y. Chicago



A Pleasing Christmas Gift.

What shall I buy the folks for a Christmas present? One of the most pleasing and acceptable gifts you can make will be a set of the Pan-American Exposition Souvenir Coffee Spoons, made especially for the Lake Shore & Michigan Southern Ry. by the Oneida Community. They are made of best material, carefully and handsomely finished and fully guaranteed. They are serviceable and will last for years. Like quality spoons sold at Exposition at 50 to 75 cents each.

The set consists of six spoons. A different Exposition subject is engraved in the bowl of each spoon.

In ordering: Remit by express or post office money order to **Oneida Community, Niagara Falls, N.Y.**

Complete set in satin-lined box, post paid to any address for $1.00

For comfortable, enjoyable travel between the cities of Chicago, Toledo, Cleveland, Buffalo, New York and Boston, use the famous through trains over the Lake Shore & Michigan Southern Railway. For any particulars about travel via this route, address A. J. Smith, G. P. & T. A., Cleveland, O.

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Your Monogram

HEAVILY GOLD PLATED ON BLACK PATENT LEATHER WATCH FOB WILL BE SENT YOU

FREE

UPON RECEIPT OF YOUR SUBSCRIPTION ORDER FOR

COACH AND SADDLE

FOR ONE YEAR.

Each monogram is cut separately and the gold-plating is fully warranted. The fob is made from the best quality of patent leather.

The accompanying picture of the fob shows the gentlemen's size. For ladies the fob is a trifle smaller and the monograms are cut in the "block pattern."

This offer is made to acquaint lovers of horses with the biggest and best MONTHLY PUBLICATION, devoted to AMATEUR HORSEMANSHIP in the WORLD. The October number has 88 pages, with over 60 illustrations, and here are some of the features:

CHICAGO'S SECOND ANNUAL HORSE SHOW,	
ROAD AND SHOW RING, by	F. M. Ware.
MR. VANDERBILT'S RECORD COACHING TRIP, by	Gurney C. Gue.
CLOSE OF THE HORSE SHOW SEASON.	
CUSTOMS OF THE ROAD, by	F. M. Ware.
LIGHT HARNESS HORSES AT NATIONAL SHOW,	
THE POLO CHAMPIONSHIPS, by	A. H. Godfrey.
POLO SCHEDULE, END OF SEASON, 1901,	
ENGLISH POLO OF TO-DAY, by	T. F. Dale.
CROSS-COUNTRY RIDING IN AMERICA, by	David Gray.
CHAMPION HACKNEYS AT MAPLEWOOD, by	A. H. Godfrey.
COACHING, by	Oliver H. P. Belmont.
COACHING CLUBS OF AMERICA,	
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TANDEM TOUR THROUGH WISCONSIN.	
WITH THE THOROUGHBREDS,	

If you don't care for the Watch Fob, you can have a set of the Famous . . . .

Fallowfield Hunt Pictures.

IN COLORS.

There are six subjects in the set, and the pictures are beautifully colored. Each picture is 14x11 inches and are facsimile reproductions from original drawings by the celebrated English artist, Cecil Laldin.

In ordering, send the subscription price of COACH AND SADDLE, for one year, $3.00, and state whether you desire the Watch Fob or the pictures. Write the initials of your name plainly in ordering the Fob. Sample copy mailed for 10 cents in stamps.

FULL CRY.

ALL ORDERS SHOULD BE ADDRESSED

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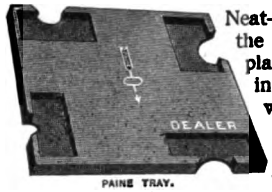
Whist Lessons Free.

$20.00 course, by mail, with each set of Paine's Whist Trays bought from your dealer. Write us for particulars. Our booklet, "Simple Whist," teaches principles of the game in an evening. Mailed for 2c. stamp.

PAINE'S DUPLICATE WHIST TRAYS.



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Neat—Compact—Durable—the most satisfactory for playing Duplicate Whist, in which skill—not luck, wins. Cards are easily inserted and securely held. Every detail patented. Infringements will be prosecuted.

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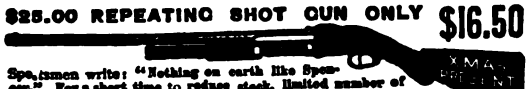
Pump Water Closet

Fig. 63

finishes entirely below seat, is especially adapted for use on small yachts and launches.

ALFRED B. SANDS & SON,
YACHT PLUMBERS,
And Manufacturers of Yacht Plumbing Specialties.
134 Beekman St., New York.

$25.00 REPEATING SHOT GUN ONLY $16.50



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SITTING BULL CARD BACK.

An authentic likeness of this most noted of Indian chiefs. A companion to the famous Rookwood Indian design—printed in the rich, mellow colors which have helped to make the Rookwood back so popular. Found only in our

Congress Playing Cards

(Gold edges.) Thin, crisp, elastic. Preferred by wise entertainers, who know that handsome cards do much to make the party a success. Booklet, "Entertaining with Cards," illustrates all the popular backs, such as Rookwood Indian, Spinning Wheel, Good Night, George Washington, Mill, Rube, Delft and many others. Sold by dealers.

Adjudged "perfect," and accorded highest possible award, Pan-American Exposition, Buffalo, 1901, and World's Fair, Chicago, 1893.

Awarded "Grand Prix" against all nations, Paris, 1900; the only Playing Cards ever deemed worthy a "Grand Prix."

Our Goddess of Liberty Trade Mark Ace.

CUT THIS OUT and send with 2c. stamp and we will mail you sample Sitting Bull card and above booklet, describing an Indian and many other novel card parties.

THE U. S. PLAYING CARD CO.
Department 4, Cincinnati, Ohio.

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ARMY AND NAVY

The January OUTING will be a special Army and Navy Number, with some of Frederic Remington's most effective work and several articles dealing with athletics and athletic development in the Army and Navy.

Athletic development at West Point, at Annapolis, among the enlisted men of the army, and among the enlisted men of the navy, will be described and commented upon by Captain Richmond P. Davis, Captain E. L. King, Lieutenant Martin Trench and others.

But diversity is the key-note of the OUTING policy. So this January number will have, besides other features, plenty of stirring adventure: "On the Frontier with the Indians," illustrated by Frederic Remington; "With the White Wolf of the North;" "After Kangaroos in Queensland;" "After Wild Horses in Australia;" and so on.

For the man with the gun there will be shooting stories; shooting deer in Colorado; shooting ptarmigan in Canada; shooting ducks along the Columbia; shooting bob-cats in Texas; shooting papabotte in Louisiana, and more likewise.

Of animal stories "The Taking of the Beaver" will be the first of a series on "The Story of the Trapper," which will begin with the January issue. "Do Animals Think?" and "Collectors and Collections of Pistols" are both absorbingly interesting, and the latter article will be illustrated with six full pages of striking plates.

Caspar Whitney will, as usual, have his say on current sporting matters under the caption, "The Sportsman's Viewpoint."

Why should more be said? The magazine will, of course, be on sale in the usual places, but orders sent in now are sure of fulfilment. The demand for OUTING steadily increases.

JANUARY OUTING

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Winter Tours

I have spent the entire month of November in working out information for winter tours.

During the month I believe I have found out about every place in the United States (and some abroad) where a man or a woman, or a man and a woman or a family, may go for recreation and amusement.

When I started out I had about a dozen orders from persons who wanted me to lay out their entire tours; using these as a wedge I have gotten rock bottom rates from every winter resort hotel in the country.

I have several tours in mind which should appeal to those who want unique and unusual trips.

All of my information is at the disposal, without any charge, of every OUTING subscriber. If it is desired I furnish every necessary item to a tour—tickets, both railroad and steamship; carriages; hotel accommodations; guides, couriers, etc., if necessary. For this service there is no charge, my department being remunerated by the usual commissions which the railroads pay tourist agencies. In this way OUTING subscribers may be relieved of every detail of a trip and may feel assured that the expense and delays are minimized.

I should be pleased to arrange other trips. Tell me your ideas, the size of your party, when you want to go, and the amount you desire to spend.

HERBERT WHYTE

Outing, 239 Fifth Avenue, New York.

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The Greatest Novel Ever Written

All the great critics agree that the most famous novel in the world is

"Madame Bovary"

By GUSTAVE FLAUBERT,

the great Frenchman who inaugurated the Realistic School since followed and developed by Zola, DeMaupassant, and Dumas, fils.

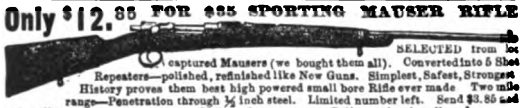
"Madame Bovary" is a world-famous classic. Not to have read it is to argue yourself unread. On its publication in 1875 Flaubert was arrested and charged with having written an indecent novel, but was triumphantly acquitted and completely vindicated from the absurd accusation. As to the supreme art of this wonderful novel no less an authority than Henry James (himself a master of style) has written, "The perfection of 'Madame Bovary' is one of the commonplaces of criticism, the position of it one of the highest a man of letters dare dream of, the possession of it one of the glories of France."

The only complete unexpurgated English translation of this masterpiece is by Mrs. Aveling, a daughter of Karl Marx. This translation is universally admitted to be a triumph of faithful translation from French into English. I have bought up an edition, and will send a copy express paid, to any address on receipt of $2.50. The book is unusually well bound.

Apply, before the edition is exhausted, to

DUDLEY PHELPS, - - Evanston, Ill.

Only $12.85 FOR 285 SPORTING MAUSER RIFLE



SELECTED from 100 captured Mausers (we bought them all). Converted into 5 Shot Repeaters—polished, refinished like New Guns. Simplest, Safest, Strongest. History proves them best high powered small bore Rifle ever made. Two mile range—Penetration through ½ inch steel. Limited number left. Send $3.85 and rifle will be sent C. O. D., balance $9.00 and expressage. Full examination allowed.

F. BANNERMAN, 579 Broadway, New York.

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is a field that abounds in attractions for the devotees of every sport. Lovers of outdoor life can keep in touch with this splendid field, and dealers in sporting goods can reach a most desirable class of readers by making use of

THE NORTHWESTERN SPORTSMAN

Hunting, Fishing, Yachting, Ice-Boating, Harness Horses, and Dogs.

M. E. McINTOSH,
Editor and Manager,
Herman Building, Milwaukee, Wis.

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The New York State Special

Leaving Chicago (*daily*)	- -	5.30 p.m.
Arriving New York (*daily*)	- -	8.45 p.m.
Arriving Boston (*except Sunday*)	-	11.30 p.m.

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Leaving New York (*daily*)	- -	8.45 a.m.
Leaving Boston (*except Sunday*)	-	5.00 a.m.
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With magnificent equipment of through Sleeping Cars and Dining Cars.

The above trains are in addition to the three through trains heretofore run between Chicago and the east, leaving Chicago at 10.30 a.m., 3.00 p.m. and 11.30 p.m., daily.

All trains of the Michigan Central arrive at and depart from the Grand Central Station, New York, the only railroad in the city, and the new South Station, Boston.

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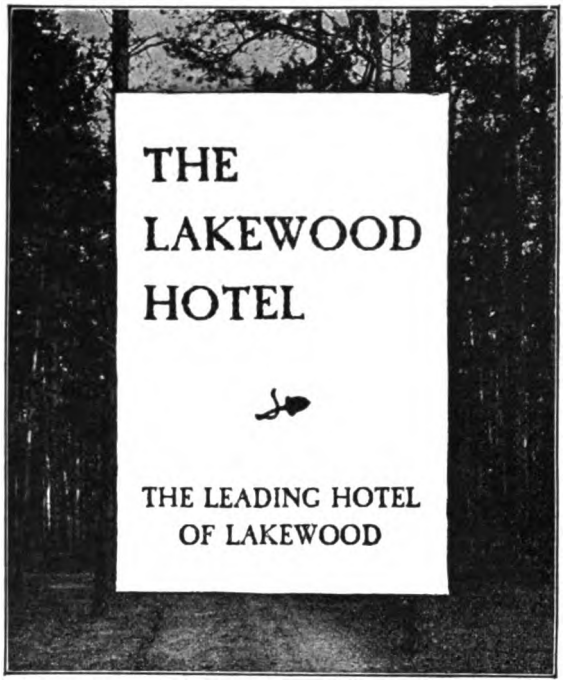
Lakewood, N. J.



Now Open

A perfectly appointed hotel, replete with every convenience, comfort and luxury. Climatic conditions unsurpassed by any Winter resort in America, only eighty-five minutes from New York.

The famous Hydrotherapeutic Baths (water cure) remain under the direction of the house physician.

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NEW YORK & BERMUDA AND WEST INDIA STEAMSHIP LINES
OF THE QUEBEC STEAMSHIP CO., LIMITED.

TWO NIGHTS AT SEA

New York and Bermuda Royal Mail Steamship Line

The first-class Iron Steamship "TRINIDAD," 2,600 tons, or "PRETORIA," 3,300 tons, having unsurpassed passenger accommodations, will sail from the Company's pier, 47 NORTH RIVER, fortnightly to end of year, and weekly during January. Five days during February, March, April, 1902.

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St. Thomas, St. Croix, St. Kitts, Montserrat, Antigua, Guadaloupe, Dominica, Martinique, St. Lucia, St. Vincent Barbados and Demerara. SPECIAL TOURS, including Porto Rico and Cuba.

Composed of the first-class Iron Steamships "MADIANA," 3,080 tons, "KORONA," 2,874 tons, "FONTABELLE," 2,700 tons, "RORAIMA," 2,700 tons, "CARIBBEE," 2,000 tons, with highest class accommodations, electric lights, electric bells, etc., etc. These vessels have excellent passenger accommodations, and are scheduled to sail from PIER 47, NORTH RIVER, every ten days. For passage and information regarding the above routes, apply to ARTHUR AHERN, Secretary Quebec, Canada.

THOS. COOK & SON, 261 Broadway, New York. A. E. OUTERBRIDGE & CO., Agents, 39 Broadway, New York.

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ITS MAGNIFICENT TRAINS ARE MORE HOME-LIKE THAN HOME.

Excellence, Security, Speed, Comfort, Convenience and SUPERIORITY IN ALL THINGS are the peculiar characteristics which make it the

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Queen & Crescent

service includes fast Trains, Dining Cars, Café, Observation and Parlor Cars, superb in appointment.

Through Pullmans from Cincinnati and Louisville in connection with Southern Railway to Chattanooga, Asheville, New Orleans, Florida and all points south. Write for free printed matter, handsomely illustrated.

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the best game country to-day is along the line of the

IRON MOUNTAIN ROUTE

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HOLIDAY TRIP

Colorado offers nothing more beautiful than the journey through Delaware Water Gap and the Blue Ridge Ranges.

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Leaves Chicago 11.30 p. m. daily and arrives San Francisco 8.25 a. m. the fourth day. Buffet drawing-room sleeping cars and tourist sleeping cars Chicago to San Francisco daily. Personally conducted excursions to California and Oregon every Tuesday and Friday.

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Equipment and Service Unequaled.

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—*Sir Walter Raleigh.*

ST. MICHAEL TO MANILA 11,974 MILES.

And the Stars and Stripes affording protection to American Commerce all the way. It is well known that the

NEW YORK CENTRAL LINES

are aiding in every proper way the expansion of American Commerce, and in line with this policy have issued No. 21 of the "Four-Track Series" as an object lesson for the world.

A copy of No. 21 of the "Four-Track Series," "Round the World in 60 Days," will be sent free, postpaid, to any address, on receipt of a postage stamp by George H. Daniels, General Passenger Agent, New York Central & Hudson River Railroad, Grand Central Station, New York.

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Jamaica is the most beautiful of all the West India Islands.

Delightful, Tropical Winter Resort With Summer Climate

AND IS MOST COMFORTABLY REACHED BY THE SPLENDID TWIN-SCREW STEAMSHIPS

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(Sailings from Boston, Weekly, Oct. 1 to April 1; Semi-weekly, April 1 to Oct. 1)

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Prints in any Light

yet requires no dark-room for development. Gives pure black and white prints of surpassing depth and richness.

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Division of the General Aristo Co.
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will be open for guests December 15th, under the management of Miss ESTEY, of the Miramonte Inn at Sugar Hill, New Hampshire.

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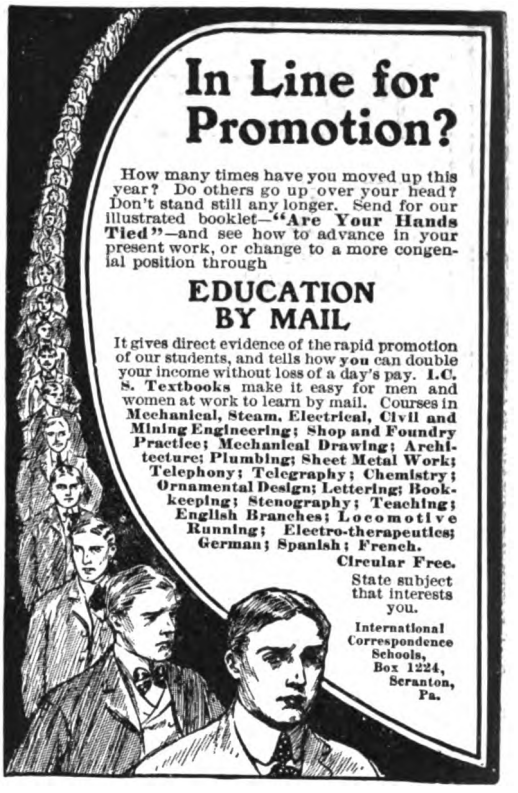

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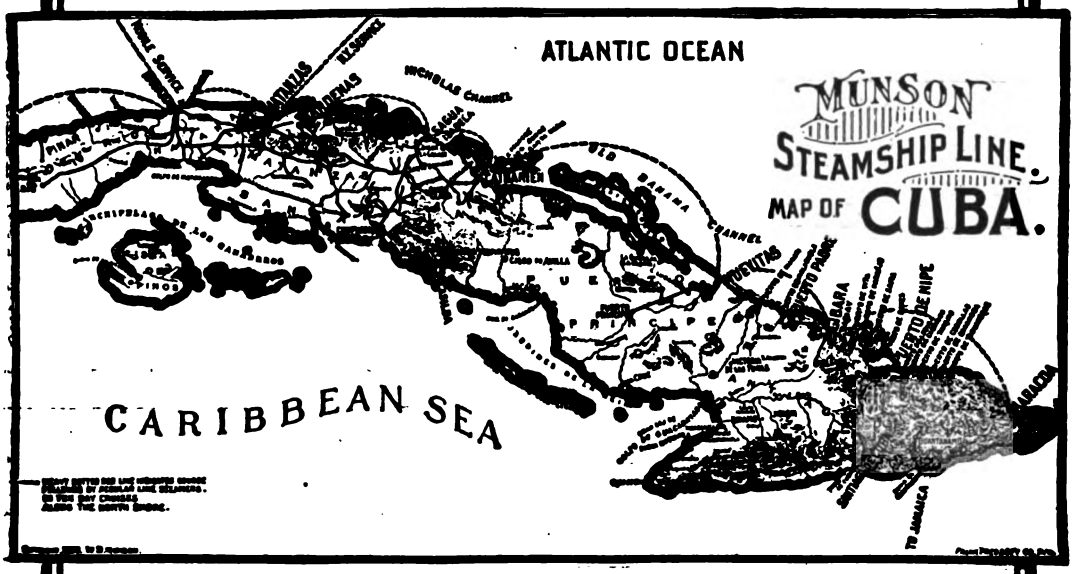

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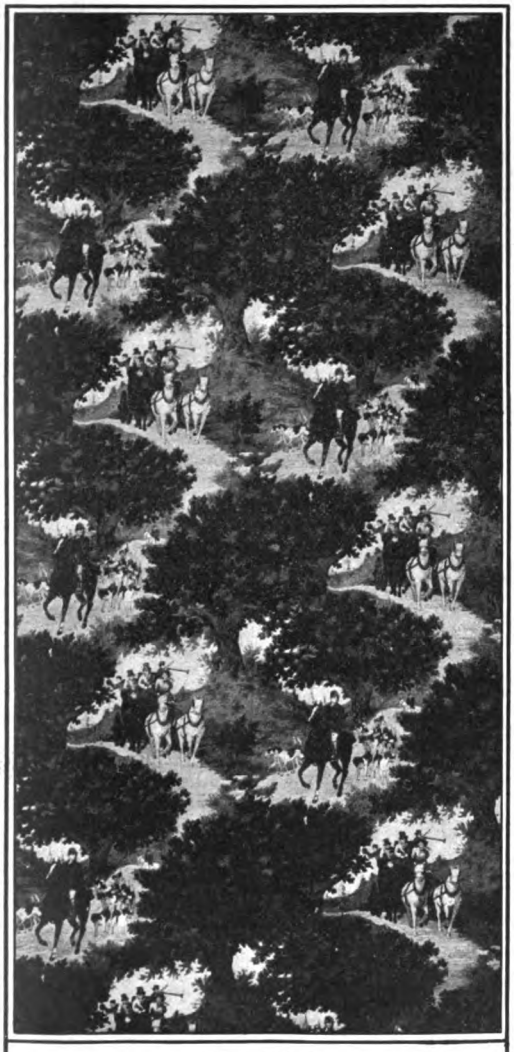

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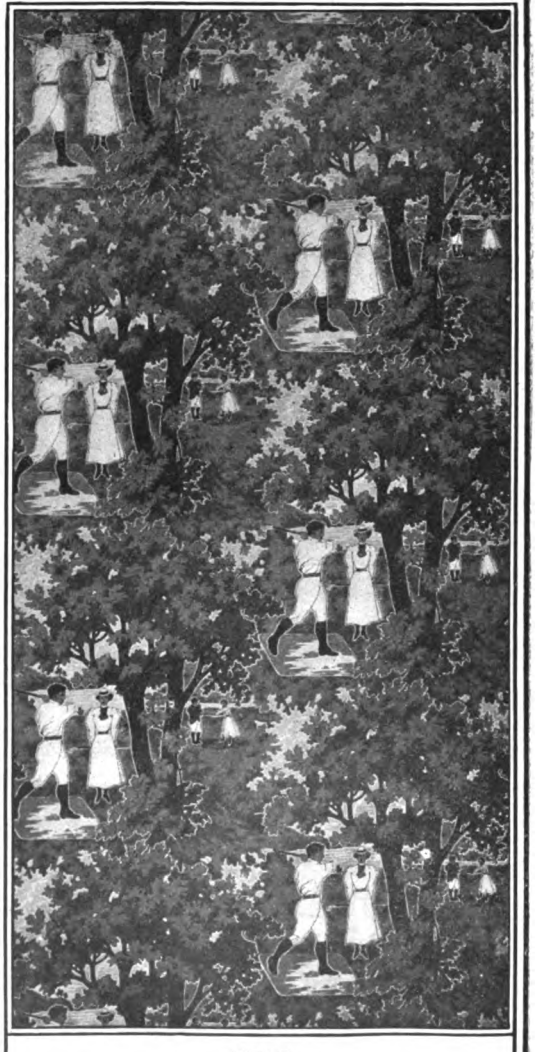

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OUTING

VOL. XXXIX. JANUARY, 1902. No. 4

ONE WAGON-TRAIN BOSS OF TEXAS

AN ADVENTURE WITH INDIANS ON THE FRONTIER

By Wm. M. Edgar

DURING the latter days of February in 1866, I left San Antonio with a train of twenty-five wagons—each drawn by a ten-mule team. We were freighted with merchandise bound for El Paso, about six hundred and forty miles of plain and mountain and desert away. Nothing of unusual interest marked our progress until we reached the Pecos River, except an extreme scarcity of water and grass, no rain having fallen for months past. Travel had been almost abandoned during the four years of our Civil War, in consequence of which the roads had been washed out by former rains which rendered our progress slow and difficult; and to make the journey even worse, we were overtaken by a frightful storm which held us three days in camp without wood, and killed one hundred and five mules.

The return trip was pleasant, or as pleasant as the ceaseless grind of a caravan can be, jingling down an arroya and straining up the other bank, slowly plodding over the deep sand of the flats, tightening nuts and throwing mule shoes until we pulled into old Fort Davis, an abandoned soldier camp. Here we were detained a day, awaiting the arrival of corn which I had ordered to meet us from Presidio del Norte, a Mexican town on the Rio Grande, eighty miles off our line of travel.

On the morning of the first of June I noticed several large smokes rising in the cañon below me, which cut my route through the mountains. I gave it little attention supposing that some of the trains preceding me had set fire to the grass. We pulled out as usual and made ten miles down the cañon to a noonday camp. The grass was good and plentiful but I found the water badly stirred up and almost unfit for use. Consequently I gave orders not to fill the kegs here, intending to make a short afternoon drive to Wild Rose Pass over an ugly intervening hill. At two in the afternoon we left camp and by four had passed the hill. The wagons were massed on the eastern slope, in a narrow gorge. The road ran for a mile when it turned abruptly into Wild Rose Pass, my proposed camping place. Wishing to select my spot for the night, I rode ahead of the wagons accompanied by my cook and an old man by the name of Forbes. This latter was mounted on a fine American horse, while myself and the cook were riding mules. The cook was leading a very spirited horse which I had purchased at El Paso.

When about a thousand yards in advance of the train my cook pulled up saying: "Look at the Indian!"

There he was, sure enough—a mounted Indian—gazing steadily at us. In less than a second he was joined by four who then bore down upon us at full speed.

Old man Forbes becoming alarmed broke for the train, my horse led by the cook

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started to follow and being much fleeter than the mule he drew the cook's saddle, to which he was securely tied, upon the mule's neck, throwing the cook violently to the ground. I feared he was seriously injured and tried to get him up behind me.

While thus preoccupied I heard shots from the direction of the train and glancing that way saw the wagons corraling while swarms of warriors circled them. Seeing it was folly to attempt reaching the train riding double on a mule I directed the cook to go on foot, keeping well to the left of the Indians, holding his gun in readiness but not to fire so long as he could avoid it. I told him quickly that when an Indian started toward him to cover him with the gun while I would ride down the road directly to the train thus drawing their attention. We bade each other good-bye and started in on our hurried and desperate strategy. Our plan seemed well devised since the cook was not molested. The entire force of Indians, some sixty or seventy of them, left the train and made for me. They closed in on all sides, using their arms freely and why the mule or myself never received a scratch remains to me an unexplained miracle to this day. I had no arms save an army six-shooter, though anything else would have been in my way. They continued to close in on me until the circle around me could not have exceeded forty feet in diameter.

Not succeeding in dismounting me two of them more daring than the rest closed in on my right and left trying to catch my bridle. I threw my pistol down on one and fired my first shot. It was almost touching the Indian's breast. He shrugged his shoulders and left for the happy hunting grounds. Mr. Number Two made the same attempt from the other side and my second shot sent him lining out after his brother. This target practice drove the entire bunch to my rear, leaving my road open to the wagons, but I was now more fearful than before. I expected them to lance me through the back. None too soon I threw myself forward on my mule's neck and glancing back saw two warriors mounted on quick ponies with lances almost touching my back. Like a thought I covered them with my six-shooter causing them to rein up heavily, throwing their horses onto their haunches. Before they could recover I was out of reach.

On arriving at the train, my men, after witnessing what they had, seemed to look upon me as superhuman. The cook had successfully run the gauntlet but in looking to the rear of the train, I perceived old man Forbes, about half a mile distant, coming at full speed, hotly pursued by two Indians, all of their horses much jaded.

Instantly grasping a rifle I ran down the road to his assistance. When near enough I fired at the first Indian who immediately gave up the chase though apparently unhurt. Reloading I drew down on the second and he fell dead in the middle of the road. This freed the old man who lathered into the wagons directly, safe and sound. It was a very narrow pass we three had come through. After leaving me in front of the train I had supposed Forbes had gone direct to the train but seeing so many Indians he had left the road, passed around a small mountain or butte, coming back into the road considerably in rear of the wagons, thus giving him a rough and rugged run of about four miles.

Having now got everything safely in keeping, I looked around and found the corral had been disadvantageously located. I concluded to change it by moving directly towards the water where there was vantage ground. We fought our way to a sag with high ground on all sides affording good shelter and again halted the train.

All night long the Indians harrassed us. They crept up close to the wagons and wounded many of our mules with arrows. To our right and not more than one hundred yards away was a deep washout where the Indians were secreted before making the first assault and from this point they mostly made their advance. Morning did not mend our situation. The Indians seemed determined to take the train, yelling from the washout that if we did not leave the wagons and go to the hills that they would surely kill us all. My men were all Mexicans, the majority of whom were clamorous to abandon the property in order to save their lives. I talked to them at length and prevailed on them to remain, promising to acquiesce in their wishes if no succor reached us by the end of the following day.

We were now completely surrounded, the Indians firing from every direction, though I must say with little effect, because the men were well protected, but they were maiming and killing mules. The wagons

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were close together except in the front and rear which were well secured with ropes, hung with blankets the better to conceal our movements in the corral. I caused rifle-pits to be dug under the wagons and on the second day began to dig a well, which, when abandoned, was thirty-four feet deep with water in sight. We could have reached water on the second day had we been able to work steadily. There was no moon and by night the Indians approached very close and showered us with arrows and by day we were prevented from moving about.

For four days and three long weary nights the siege lasted, during which we had no time to prepare food, were without water, and could not sleep. This privation was particularly true of myself, being in command and having to be constantly on the alert for both my own men and the enemy.

The Indians lay about us beyond rifle fire—some herding horses in plain view while a few held favorable positions, keeping up a continuous fire. I soon discovered that in order to reach my men in the pits, they were forced to expose themselves by getting on the back of the arroya or washout and by putting some of my best shots in the wagons, raising the cover just enough to see the Indians as they drew above the bank to fire, we were able to kill a few.

After a little of this they quit their positions and began to make overtures for a big peace talk. They invited us into the arroya for this purpose but I was familiar enough with Indians to know that it would only invite treachery on their part. I told them that if they wanted to talk they must come out of their hiding and talk on the plain. One of them finally did so, stating that they were very poor, were in fact in a starving condition and that if I would give up a little corn they would give up the water and leave us. This I agreed to do much against my will.

On the morning of the fourth day they marshalled all their forces in our front, in groups of from twenty to fifty. One chief appeared with a fiery red blanket and as you have seen cattle going to water, they started off in single file, at a snail's pace. They passed behind a little butte and as they emerged on the opposite side we counted two hundred and eighteen bucks. At a water hole on our left there were eighteen others on foot and at another water hole in our front we counted twenty-five others making two hundred and fifty-one Indians in sight at one time.

They were Mescalaro and Lipan Apaches under Chief Gordo, and on the second day were joined by as many Navajoes from Bosque Redondo Reservation in New Mexico. They were well clothed, well armed and well mounted. They crossed the road about two hundred yards in our front where they began to pass around the train. I now felt that our only hope lay in a determined fight, so I prepared for what seemed the final struggle. Going to each rifle-pit I cautioned my men to be calm and to hold their fire until they were sure to kill. During all this time everything was as silent as the grave. The Indians kept moving until they were lost in the washout. I expected a charge but after a time they came out and said they would take the corn and give up the fight. We accordingly placed the corn fifty yards in front of our wagons, telling them that twenty men could come up and remove it but that more would be fired on. They made an attempt to come *en masse* but I ordered a halt and Gordo prevailed upon them to do so. They finally got the corn, which they distributed and then to our satisfaction they left. I drove my mules to water but while drinking I so much distrusted them that I rode back to have a look down the valley. I saw them returning as I mistrusted they would, but I waved my hat and again they bore away from us disappearing to be seen no more.

My whole force in the fight was twenty-six men and two boys. We had as passengers, two women and two children—belonging to two of my teamsters. These I used to good advantage in working on the feelings of my men, saying that no one but cowards would abandon women and children to savages.

In the Limpio cañon which was the scene of this fight, we afterwards found ample evidence that Chief Gordo's *hombres de armes* had suffered heavily, which undoubtedly made them faint-hearted and willing to quit but they had us in a very bad way before they did and might have conquered us with a little more persistence.

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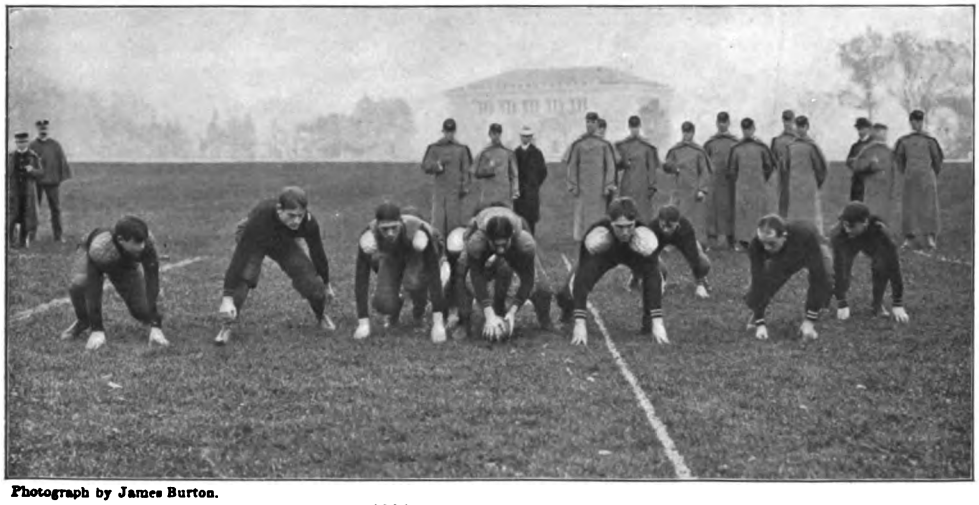
ATHLETICS AT THE UNITED STATES MILITARY ACADEMY

By Captain Richmond P. Davis, U. S. Army

LIKE all other history that of athletics at the Military Academy has an unimportant unrecorded period. This comprises the years previous to 1890. I find from the graduates who were cadets in the days back as far as the Civil War, that in the late sixties some attention was paid to boating and that considerable interest was taken in races between classes; there was, however, no organization of any kind to foster this interest and the cadets were so hampered by rules, regulations, and limitations that a natural death in the early seventies was the inevitable result. A slight revival of boating from 1875 to 1880, and an attempt at a little tennis and baseball cover the period to 1880. Accounts of very spasmodic baseball and tennis in the eighties close the unrecorded history.

An idea of the restrictions to which athletics were subject during this early period may be gained from the following instances vouched for by some graduates with whom I have talked on the subject. If tennis was to be played it had to be in dress coats, and a cadet was punished for having two buttons of his coat unbuttoned while engaging in a game of baseball on the parade ground. Is it to be wondered that, with no organization, little time, and such restrictions, the latent athletic spirit and possibilities of the cadets should have been smothered? During the period 1880–1890 more liberty of dress was allowed, but the lack of organization and combined effort made the results practically nil.

The year 1890, however, marks not only the beginning of our recorded athletic history but also the beginning of a more liberal era in the history of the Academy itself. It began to be realized about this time that the best development of a young man was not accomplished by making him work most of the day and forbidding him any recreation during the short liberty hours at his disposal; it seems not to have occurred to any one under the old régime that the hundred horses standing idle in the stables might be used to great advantage in giving the cadet a refreshing gallop through the glorious hills surrounding West Point after a hard week's work; it seems to have been considered that the exercise of ordinary drills was all sufficient; recreation was then,



Photograph by James Burton.

THE 1901 ARMY FOOTBALL TEAM.

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as it is now by the opponents of the new order of things, frowned upon, as tending to take the cadet's mind from his studies. Every one who is familiar with the educational development of young men through experience (this eliminates those theorists who know all about it intuitively) knows that there is but one thing worse than the neglect of studies during study hours and that thing is the neglect of proper recreation during the hours that experience shows to be necessary for the proper refreshing of the mind after serious mental effort. An appreciation of the foregoing, combined with the fact that a sound body is equally important with a sound mind in the profession of a soldier, caused more consideration to be given to the gymnastic part of the curriculum at the Academy.

The result was the completion of a well equipped gymnasium in 1891. All fourth-classmen are required to take a regular gymnastic course and the gymnasium is open to all cadets during liberty hours. In addition to the main room for exercising, the gymnasium is provided with a large swimming tank, shower baths, and bowling alleys. All first year men in addition to their instruction in the usual gymnastic exercises are given lessons in fencing, in the use of the broadsword and in swimming; they are required to take swimming lessons until they can swim continuously for fifteen minutes; the other gymnastic instruction mentioned above extends throughout the first year and occupies half an hour daily for each cadet.

The proper appreciation of the advantages to be derived from the best possible physical development of the cadet combined with the opportunity for combined exercise and recreation which athletic games offer, made their introduction easy under the conditions existing in the early nineties. For this introduction we are much indebted to our sister Academy at Annapolis. There the athletic spirit of the age was recognized before it was appreciated at the Military Academy, and about November 1st, 1890, an agreement to play a game of football on the first of the following month was made by the West Pointers with an organized "Middie" team. The arrangement of that game marks the beginning of active athletics at the Military Academy and under the conditions illustrates the spirit of sport for sport's sake which is the actuating principle of all our athletic events. The game was arranged and a football squad formed by cadets Michie and Prince. In the squad were several men who had never seen a football game and only two who had ever handled a football according to modern methods. The game was played on the open plain at West Point with scarcely a spectator beyond the members of the corps of cadets, officers stationed at the Post and a few naval officers; the West Point team was of course beaten, but the dormant athletic spirit was aroused and thus was inaugurated what has since proven to be the greatest source of interest and recreation not only to the two Academies but to the entire Army and Navy. The Navy thus in part returned its obligation for the gift by the War Department of the land upon which its *alma mater* was founded half a century before.

It seems quite remarkable that athletic games and sports should have thus reached us so long after they had taken root at the eastern colleges. The reasons for this were probably ultra-conservatism on the part of the authorities, which I fear is only too characteristic of military institutions, the almost absolute isolation of the cadet, and the little time available at the Academy for anything but work. Equally with the slowness in adopting anything new is the energy with which our military men do a thing when once it is begun; with such characteristics there is always the danger of overdoing but in the case of athletics at the Academy this is impossible, for athletic events must be confined to what may be termed the liberty hours of cadets, and the greatest advocates of athletics would deprecate more than any one else any improper encroachment upon the academic work.

What strides she made in football after the game was once started cannot be better expressed than in the following from Mr. Caspar Whitney's review of the football season of 1895:

"But the most gratifying showing of the year was made by the two National Academy elevens at West Point and Annapolis. No other institution in the United States more thoroughly demonstrates the *mens sana in corpore sano* in college sport than these two. I cannot miss the opportunity of again saying all honor to the cadets, for in six years they have developed their game to the rank of first class. Without gate money, without losing any time from prescribed academic

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duties, without suspicion of offering inducements to players to take a course at the Academy, they play a clean, sportsmanly, forceful game, and their record is an object lesson in honest, manly sport for sport's sake. Comparing the leading teams of the year, I should place them: Yale, Pennsylvania, Princeton, Harvard, West Point, Brown, Cornell. * * * Nolan, of West Point, is also one of this season's developments and a man worthy of a place on any 'varsity team. Of the full-backs of the year, King of West Point, and Jerrems, of Yale, are worthy of remark."

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Photograph by James Burton.

THE PICTURESQUELY SITUATED POLO FIELD AT WEST POINT.

The points just mentioned are well illustrated by examining the following table showing how the cadet's time is spent during the athletic season, and considering in connection with it the results achieved, and it must be remembered, especially by the college reader, that there is no deviation from this schedule for any cause, save illness. October is an average month; there is a little less liberty time in September and May and a little more in April and November.

Look at that liberty time and its distribution, ye university athletes and wonder how West Point develops any teams.

The metamorphosis of this football butterfly from the beginning of the year referred to above will now be traced and is, I think, under the conditions remarkable. I also think some lessons might be drawn from it that should reduce the time now spent in heavy work by the teams of most of the great universities.

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A schedule of games was authorized for 1891 with the championship game to be played at Annapolis. The Stephens Institute team and those from Rutgers and Fordham were among the most formidable opponents and the games were closely contested. Fortunately, the services of Dr. Williams of Yale were obtained for one day per week and a decisive victory over the Navy team resulted. The ball at best, however, was but primitive compared with that of to-day. A rather amusing incident occurred during the Fordham game; there was a little roughness and the Commandant, a tall white-haired, very soldierly officer, went upon the field and informed the players that our boys did not play a game of that kind; an irreverent Fordham youngster asked "Who is the old chaperone?" The admonition given at that time has been a watchword with us and the spirit of the Fordham man has been too often exemplified on many football fields. The schedule of 1901, just ten years later, embracing closely contested games with Yale, Harvard, Princeton and Pennsylvania, affords, to say the least, an interesting comparison. The season of '91 was carried on without any athletic organization, the officers of the Post and cadets subscribing enough money to pay the expenses for the year. A schedule of games with minor teams was arranged in '92 and on November 21 of that year, a wonderful step in advance was made. An athletic organization, to be known as the Army Officers Athletic Association, was formed, the object of the Association being to encourage all forms of athletics at the Military Academy and throughout the army. There was thus put behind the athletic movement a strong organization, without which athletics would probably have once again succumbed to the inevitable opposition to everything except work.

The effect of this movement was far-reaching; a means was provided of obtaining funds, for under our conditions gate money is not only impossible but undesirable, the stamp of approval of the new departure was put upon the athletic movement, and the personal as well as general interest of many officers was enlisted in the good cause. For the sports, tennis, baseball, football, and general athletics, representatives were elected who should act in conjunction with corresponding officers of the cadet athletic association for managing and encouraging the particular games. All our athletic sports and games have thus always been conducted through the closest co-operation of graduates and undergraduates which I consider one of the greatest advantages of our methods over those in vogue in many other institutions.

Under the fostering care of the Army Officers Athletic Association our athletic infant grew apace and in 1893 branched out by making a date with Yale for October 28 and one with Princeton for November 18. I recall yet the excitement prevailing when the teams lined up for the Yale game; those were the days of wedges; West Point had the ball, and on the play after the first shock the redoubtable Hinkey emerged from the heap and Yale had scored a touchdown in one minute of play; a score of 28–0 resulted and Princeton followed with 36–4, showing that West Point had not made a great deal of progress. In 1894 Mr. Harmon S. Graves was engaged as coach and worked wonders, not only in developing the excellence of our game but also in fostering in athletics that manly spirit so necessary for success. In this year we fully embarked on the Yale system of play and adopted Yale methods to which we have clung ever since; West Point advanced to the point of a 5–12 game with Yale—the youngster had become quite a boy to be heard from in the near future.

In 1895 Mr. Graves again piloted West Point through a most successful season which brought forth from Mr. Whitney the comment previously quoted; in 1896, largely through Mr. Graves' influence, West Point adopted the graduate system of coaching to be supplemented by such assistance from great universities as circumstances would warrant. Football is to a certain extent a game of traditions and the best results are to be obtained by profiting in any year by the errors and successes of the previous one. This is best done by having a head coach from the players of the previous year, this coach to be assisted in the work by others of well known and recognized ability; the policy of our Association looks toward the adoption of such a plan though it will be hard to carry out by virtue of the present scattered condition of the army. Eighteen hundred and ninety-five is a year of which we are especially fond on acc[illegible] of its being the beginning of a fast f[illegible]

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Photograph by James Burton.

CADET LAWN-TENNIS COURTS.

ship with Harvard. Outside of our game her championships with Yale and University of Pennsylvania are the only ones played off her home ground. From the very beginning she has held that games as played on our parade are ideal sporting events when each team pays its own expenses as she has always done. To-day our games with Yale, Princeton, University of Pennsylvania, and Annapolis are all upon this basis and are thus typical sporting events of the football season.

In 1897 the West Point football team made a record second to none; in its games with Harvard and Yale the scores were 0–10 and 6–6, while in the championship game with Brown, which had a fine record for the year, the overwhelming victory of 42–0, showed a team of the first class for this year. Kromer, Scales, Nesbitt and Romeyn were members of this team and their names are among the best known of our players. This eleven while being the only one until that of 1901 to have coped with the great universities on even terms, is also the only one which has approximated to them in weight; this year's team which has played Harvard to a standstill, tied Princeton and Yale and routed Pennsylvania is a close second in weight to that of '97 and our experience is thus but another example of the fundamental principle that first-class football teams under modern conditions must have heavy rush lines.

The experienced players of the 1901 team are Casad (captain), Daly, Graves, Boyers, Bunker, Farnsworth, Goodspeed and Phipps and its record of 35 points to 17 by the "Big Four," is nothing short of phenomenal.

In September the liberty time is so short and so distributed that athletic work must be confined to Wednesday and Saturday afternoons; on these days there is about one hour of work so that nine hours have been put in when West Point plays her first game. During October it is possible to have signal practice from twenty to thirty minutes by electric light four days a week in addition to one and one-quarter hours' work on Wednesday afternoons. As a rule the West Point team has been able to line up three hours in addition to the Saturday games when it meets Harvard on the third

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Saturday in October; add to this one and one-half hours for Wednesday line-up during October and we find that the actual time spent by West Point in line-up before her Yale game in November is four and one-half hours against the "scrub" and three hours in games with teams from other colleges. In addition to the foregoing add fourteen and one-half hours spent in signal practice and work on fundamentals and the result is twenty-two hours' active football work previous to our annual Yale game. In the event of rain which stops drills practice is held and the time thus obtained averages about three hours per season. Add to the September and October time thirty-one hours spent in football work of various kinds during November and we get fifty-six hours as the total time spent in actual football work during the whole season. With the short time put upon the game and with only 450 men to choose from the results deserve more than passing notice. While all our men have to undergo an entrance physical examination, this is no criterion that the average cadet has a physique for football. The good physical condition of the cadets is a great help in getting the players quickly into condition for games, but from a football standpoint this normal condition of being practically in training is not always an advantage, for when once a player is overtrained under such conditions he can rarely be gotten into shape again during the season.

Baseball games with the college nines have been yearly occurrences but nothing of note was accomplished owing to lack of systematic work and coaching until this spring. Under the management of Lieut. Kromer systematic work was conducted in the cage before practice could be held on the Plain in April; this preliminary work combined with outdoor training during the late spring developed a team showing technique and it won the first championship game in this sport with the naval cadets by a score of 4–3. A good schedule has been arranged for 1902; it includes games with Harvard, Pennsylvania, and the Navy.

In 1894 a few of the officers at the Academy took up the game of golf which was then comparatively new in this part of the world, and these pioneers for a couple of years were more or less objects of ridicule both for officers and cadets. A fair course about 2,250 yards in playing length was laid out and has since that time furnished much amusement and recreation for the cadets and officers at the Academy but it was not until '97 that

Photograph by Pach Bros

A FENCING CLASS IN THE ACADEMY GYMNASIUM.

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a few cadets decided to brave the contempt and ridicule in which this game (fascinating to the player) was held.

In 1893 the first annual field day for track athletics was held. The events take place upon the Plain and under the trees bordering it on the south side; they consist of the dashes, a relay race, jumping, hurdling, shot putting, and hammer throwing. Much interest is taken in these events and there are usually about seventy-five entries; these field days are held in June and much rivalry exists between the classes; the class of '96 has more wins to its credit than any other.

On March 23, '95, an indoor athletic meet was inaugurated; this found much favor among the cadets and the meetings have been most successful. There are usually from seventy-five to one hundred cadets in the events which are held early in March. They form a valuable and interesting part of our athletic work and are under the supervision of a very capable athletic instructor, Lieut. H. J. Koehler. The events comprise the usual exercises practised and taught in gymnastic work. Though instruction is given both in fencing and in the use of the broadsword, the cadets seem never to have taken much interest in these accomplishments—a satisfactory reason for this I cannot advance.

The latest game to be developed at the Academy is polo—an ideal game for officers and a desirable one for cadets. It was introduced some years ago by Captain Cassatt and his efforts were followed up by Captain Howze but no results were obtained for want of proper mounts and organization. Recently through the efforts of the superintendent, Col. A. L. Mills, and the commandant, Col. C. G. Treat, some ponies have been furnished by the government, a field has been prepared on the flats, and an Army team for which both officers and cadets are eligible has been organized, and is being coached by Col. Treat. The very limited time will interfere with much excellence in the game by the cadet but after graduation he will be able to continue where he left off at the Academy.

A reliable estimate of the men who take part in some or all of the various sports mentioned is about two hundred which is ›roximately fifty per cent. of the strength 'he cadet corps.

ıe backbone of athletics at the Military Academy as elsewhere is of course football; the game furnishes fine training for a young man who is to become a soldier; it involves self-control, quickness of thought and action, nerve and generalship as does no other game with which we are familiar; it is an ideal cadet game and well merits the comment of the late General Francis A. Walker, the well-known educator and President of the Boston School of Technology—"Were I the superintendent of the Academy at West Point I would encourage the game of football among the cadets as a military exercise of no mean importance."

The present superintendent of the Academy, Col. A. L. Mills, is thoroughly in accord with General Walker and has done much toward placing athletics here upon the present desirable and substantial basis. In Col. Mills' report of 1900 we find the following: "Athletic sports have continued to receive reasonable encouragement with beneficial results to cadets in affording a needful relaxation in the mental work required and attracting them out of doors during recreation hours. That such sports and athletic contests can be engaged in at the Military Academy without detriment to the requirements of duty was signally shown by the football contest between the cadets of the Naval and Military Academies on Franklin Field. The game was witnessed by both bodies of cadets. * * * When it was over the routine of duty which had been dropped for the day was taken up immediately without having suffered any perceptible strain."

The cadet team represents the Army and is supported by subscriptions from friends and alumni, the cadets themselves, and the officers scattered all over this globe. During the season I receive letters from Alaska on the north, Cuba and Porto Rico on the south, and from the jungles of the Philippines in the east wishing Godspeed and success to the team. The result of the football games are cabled to Manila and Cuba every Saturday, while written accounts are sent all over the United States and to all our foreign possessions. It has been a special pleasure to those interested in the development of athletics at the Academy to note the increasing interest in the work by the army at large; financial support comes from every land where officers are stationed, be they graduates or not.

The question as to the effect of indulgence

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in athletics on the scholarship and discipline of the cadets has often been brought up. A good many opponents of athletics who are not at all familiar with the true situation have assumed that scholarship is deleteriously affected —the facts show the contrary. From the report of the superintendent for December, '93, we find the following based on data furnished by the heads of the Academic Departments: "The figures given out are not to be taken in any individual case as a direct measurement of the effects of football. The greater or less aptitude of the student for the new studies taken up in September always causes many variations in class standing. But taken as a whole they indicate that the general effect of the games upon the scholarship of those taking part in them is in general not injurious. * * * If not injurious to these then the general net result to the entire corps of cadets must be beneficial if my assumption be correct that complete distraction from work during the hours for recreation is beneficial."

The effect on discipline can not be better illustrated than by comparing the conduct reports of the present athletic season with those of previous months. This comparison shows that the number of cadets for each class in the first grade has been doubled during the athletic season.

The athletic event in which the army at large is most interested is the Army and Navy football game. This match was interdicted in 1894 but through the kind offices of Dr. J. William White and the Athletic Association of the University of Pennsylvania it was renewed in 1899 under the most pleasant circumstances. Franklin Field, Philadelphia, was then and every year since has been placed at the disposal of the teams from the two National Academies and as now played all the cadets from both institutions are enabled to witness the game each year and return to their respective academies in a single day. This game is a glorious athletic event and when the novelty wears off it should be most beneficial in bringing the members of both services to a fuller appreciation of that good old song:

May the service united ne'er sever
But hold to their colors so true
The Army and Navy forever,
Three cheers for the Red, White and Blue."

Capt. Treat.

WEST POINT POLO TEAMS AND THEIR COACH, CAPT. C. G. TREAT.

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FASTER THAN THE LOCOMOTIVE

THE FLIGHT OF THE AUTOMOBILE

By Ritchie G. Betts

CURIOSITIES of yesterday are the commonplaces of to-day. While it can scarcely be termed a commonplace, the automobile is certainly no longer a curiosity. To-day, on the city streets at least, it causes no more head-turning than the jingling trappings of a spanking team.

The twelve-month which effected this result has been marked by substantial progress in all that pertains to the self-propelled vehicle. Those who make them, those who use them, those who intend to use them, those who legislate for them and those who merely view them, the great general public, have each and all advanced in information, diverse in its ramifications though it may be. There is not lacking even the highly technical scientific sharps, whose bulging brows have advanced them so very far that they have been able to picture and discuss more or less profoundly the automobile of the future. Pen-painted visions of the sort are, however, more interesting than intelligent or valuable. It is easier far to picture the influence of the automobile on the future than even to hint at the future vehicle itself. The one is profitable and probable; the other profitless and impossible.

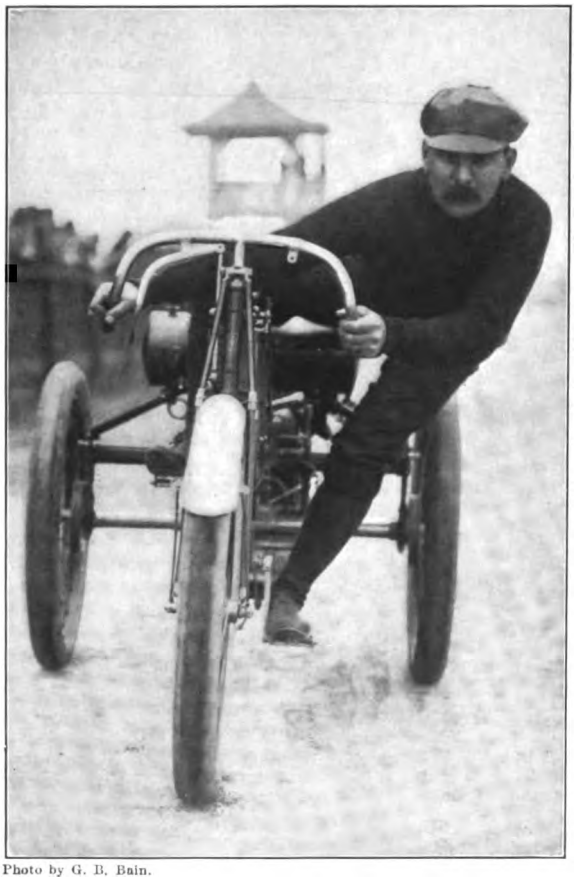

Photo by G. B. Bain.

KENNETH SKINNER TURNING A CURVE ON A MOTOR TRICYCLE AT FULL SPEED.

If we are but in the kindergarten of electrical wonder-working—and one of the world's most renowned wizards has given voice to the assertion—there is need only for a featherweight and inexhaustible battery, or one which may, by the twist of a wrist or the pass of a hand, draw power, and be recharged from the skies or the atmosphere or the whatnot, and lo! all problems are solved! The ideal automobile is at hand, and not only steam but gasolene must seek elsewhere for victories. This is mightily like imagining the vehicle of the future. Let it serve, at least, as a "horrible example." *En passant*, and as a mere flash of fancy, it is more plausible than not a few of the creations drawn to compass and reduced to writing by mathematical seers.

But the inexhaustible electric battery is not of to-day, and it is mainly to-day that must be dealt with. The show which held the boards at Madison Square Garden,

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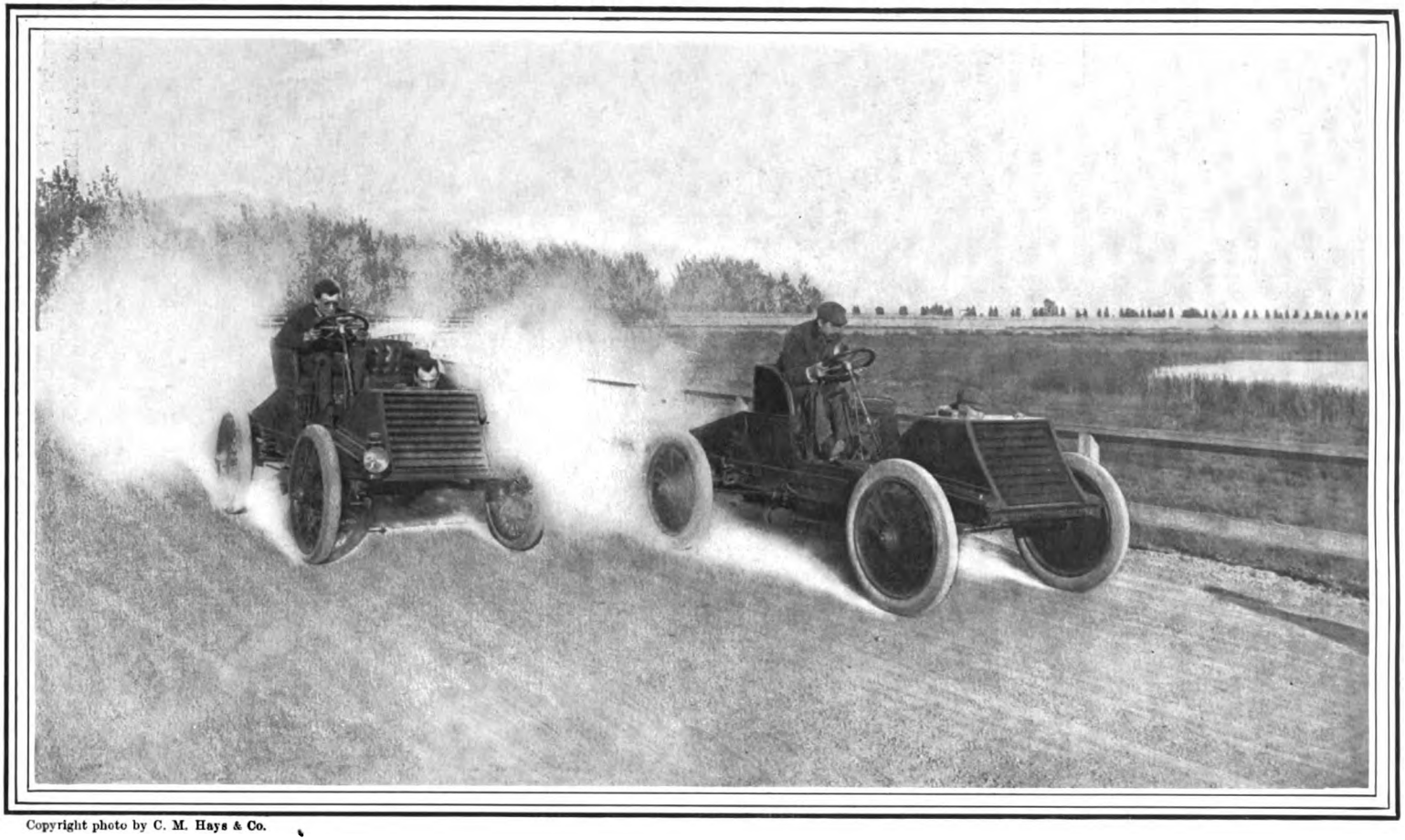

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ALEXANDER WINTON, IN AN AMERICAN GASOLENE, MAKING ONE MILE IN 1.06 (A WORLD'S RECORD AT THE TIME) OVER THE DETROIT TRACK.

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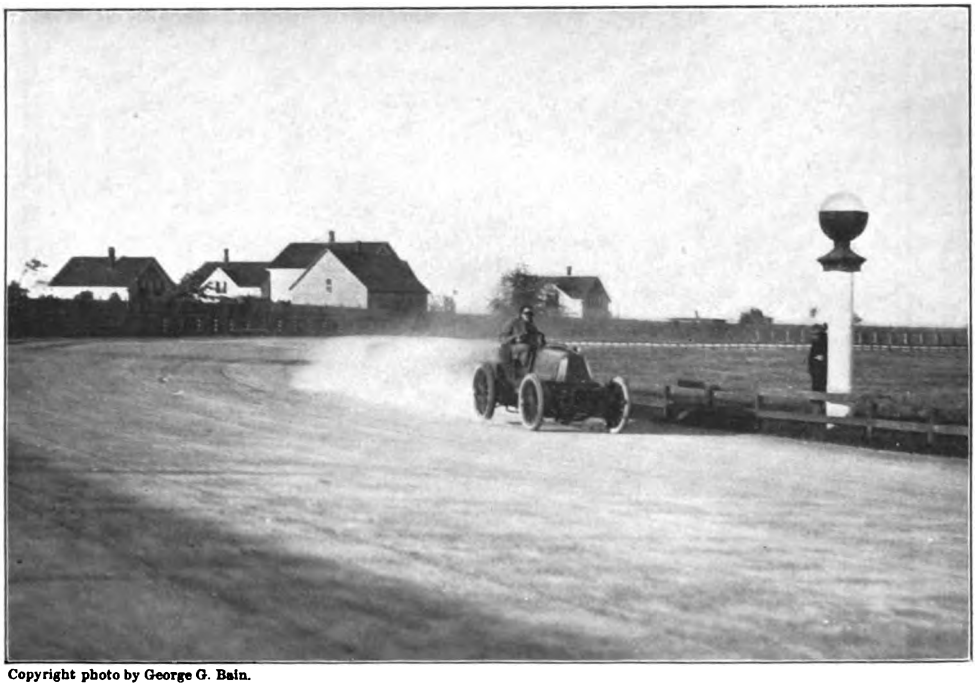
November 2d to 9th last, may be accepted as the first milestone in American automobile progress. The show of the year before will serve as the starting point.

The milestone stands for material improvement, and yet nothing had occurred or was in evidence to alter the respective status of the three rival motor powers, steam, electricity and gas, gasolene or hydrocarbon, whichever you prefer to term the gaseous power. The advocates and followings of each were in about the same ratios as the year before, with the advantage, if anything, favoring the gas-propelled vehicle. Its general principle remains the same, and, paradoxical though it may appear, while steam is the most powerful propelling agent of general commerce, it does not obtain in automobiles; in these, hydrocarbon gas is paramount as the agent of greatest power; it is the power applied to all the swift and massive vehicles. All of the marvelous speed records established since automobiles began stand to its credit, whether for long distances or short ones. But its rivals have not stood still, if they may be said to stand.

The electric battery has doubled its range of action. A year ago twenty miles was its limit, now it is forty miles, and each day brings promise of better things. Indeed, one of the newer batteries, in a trial performance, maintained its power for more than 150 miles.

Steam, too, which at one time threatened to envelop itself in a cloud of its own making, has developed apace. New systems of generation have evolved that have refreshed the laurels of "the world's standard power." Indeed, of the automobiles that are truly American in design and invention, and not merely adaptations of foreign ideas, it was a steam carriage which upheld the prestige of American ingenuity. The remarkable and uniform performances of four of these "boilerless" steam vehicles in the trying New York-Rochester endurance run constituted the automobile sensation of the year.



Copyright photo by George G. Bain.

HENRI FOURNIER SPEEDING ONE MILE A MINUTE OVER THE PROVIDENCE (R.I.) TRACK.

The rest of the world appears to have gone daft on gasolene vehicles. France, Germany and England have devoted but the very minimum of attention to "steamers" and electrics. As a result, America easily leads the world in vehicles of those powers. In "gasoleners," France undoubtedly sets

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the fashion. The latest American models of that type all reflect the influence of the French designer. The influence of the horse on automobile design has waned correspondingly.

Heretofore, the average self-propelled vehicle has been in appearance little more than a shaftless reproduction of the vehicle designed to be drawn by "man's best friend." As dictated by France, the automobile, as a particular type, may be best described as "a long, low, rakish craft" with "a narrowing and piratical prow"; it is guided by wheel instead of lever, and the man at the wheel is ensconced "amidship" in, rather than on, an upholstered seat. It is further distinguished by having its motor or engine located forward, and by the latticed hood or bonnet which encloses it, not to mention the bristling, cooling flanges or radiators which form the nose of the vehicle and give it an aggressive, hands-off appearance. It is a type which suggests the speed and power which is contained within itself.

France also has contributed the so-termed *tonneau* body—the body with luxuriously cushioned individual seats for each occupant—the seats, three or more, being arranged vis-à-vis, tête-à-tête, or at any other unstilted and conversational angles. The unversed would probably term the automobile with *tonneau* body a family vehicle and the description would not be inapt. But fortunate the family in such a vehicle! No horse has ever drawn one so invitingly suggestive of individual ease, comfort and elbow room. It almost creates the picture of an unroofed lounging room, mounted on wheels. When the touring spirit possesses the automobilist—when he fully realizes, as he surely will, that at last there is a vehicle which enables man and his family to get close to nature—to go far afield and view the country as it should be seen, the *tonneau* should become a familiar sight to even Si and Hiram.

While other countries, not excepting the United States, have frowned on speed contests, France, if it has not encouraged them of late, has not wet-blanketed the sport. The fact has contributed immensely to the development of the automobile and to the dominance of France and Frenchmen and French ideas in all that pertains thereto. The world has fairly gasped at the marvelous and long-sustained flights which official France has made possible.

Paris to Bordeaux, 327 1-2 miles, in 6 hours, 11 min., 44 se .—an average of 53.3 miles per hour! Paris to Berlin, 744 1-2 miles, in 16 hours, 6 min.—equivalent to more than 1,000 miles within the limits of a day!

The world marvels at the nerve—the lion-hearted courage—of the engineer who sits in his cab and manipulates the throttle and levers of the locomotive that speeds fifty, sixty, or more miles per hour; and the engineer deserves his meed of praise.

But what of the man who, without smoothest of rails to guide it, sits at the wheel of an automobile, and, exposed to blinding dust and the elements, steers it at fifty, sixty, or more miles an hour over the common highways, up hill, down dale, around corners, over crossings, across bridges none too smooth, and through lanes of craning, surging, nervous humanity, miles in length? Who will say that the courage, the superb skill, the clear-headedness of the chauffeur does not pale that of the locomotive engineer? Who can fail to share the admiring appreciation of such chauffeurs as Henri Fournier, the victor in the three most notable flights of speed since the world began? Three—for to those other prodigious feats has Fournier added the fastest mile ever compassed on unrailed earth, not to mention unrailable air and water—a mile in 51 4-5 sec.

But Fournier has not all of the skill and daring to himself. Others across the sea have accomplishments but a whit less wonderful to their credit, and here in America the automobile has served to convince the masses that the Vanderbilts, the Keenes, the Bostwicks and other so-called "pampered pets of fortune" are not lacking the eye, the head, the heart, and the hand that such feats call into play.

Unlike his others, Fournier's bedizening record of 51 4-5 sec. was made on American soil—on the Coney Island Boulevard, Brooklyn, N. Y., November 16, 1901, which certainly will stand as the speediest day the world has yet known. It witnessed the upset of all previous and preconceived standards; the two rival powers, gasolene and electricity, each fairly smothered its previous record; steam however failed to equal or better its record of 1 min. 6 sec.

Never since man first reveled in speed

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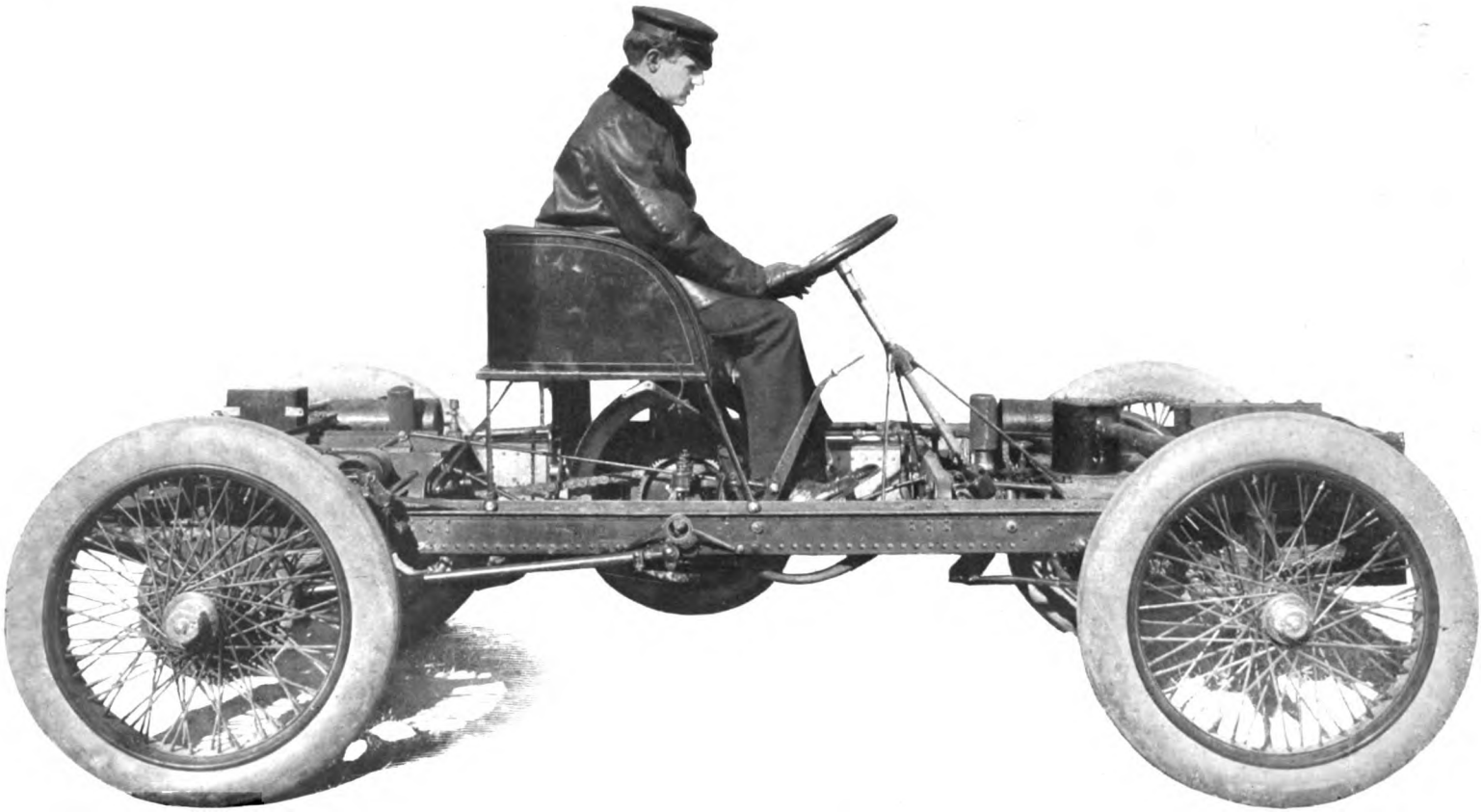

Photo by courtesy *N. Y. Tribune.*

MR. ALBERT C. BOSTWICK AND THE 40 HORSE POWER AMERICAN GASOLENE MACHINE IN WHICH HE COVERED ONE MILE IN 56 2-5 SECONDS OVER THE CONEY ISLAND BOULEVARD.

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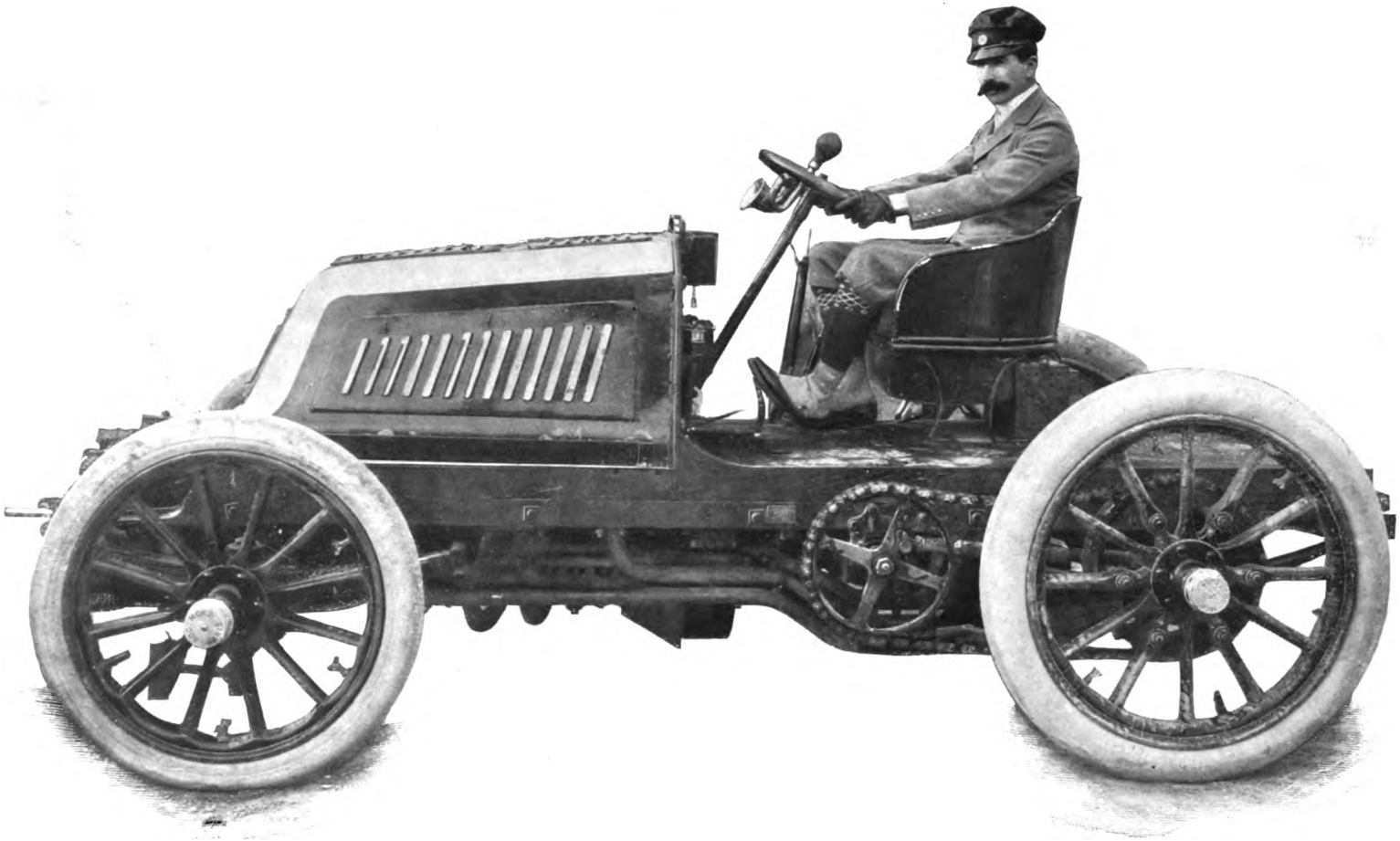

Photo by courtesy *N. Y. Tribune.*

MR. FOXHALL KEENE AND HIS 40 HORSE POWER FRENCH GASOLENE MACHINE IN WHICH HE RODE ONE MILE IN 54 2-5 SECONDS ON THE CONEY ISLAND BOULEVARD.

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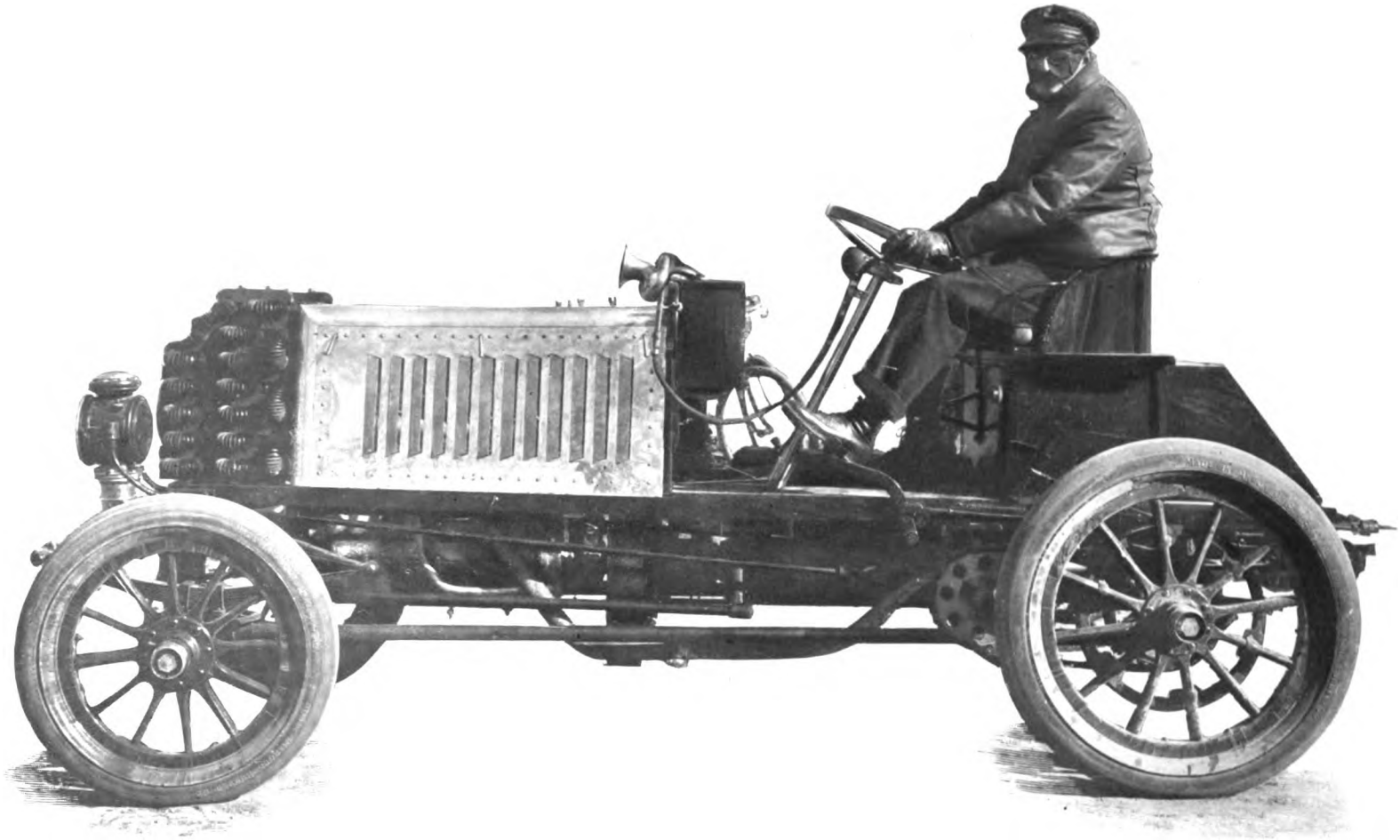

Photo by courtesy *N. Y. Tribune.*

A. L. RIKER AND THE ELECTRIC MACHINE WHICH HE RAN ONE MILE IN 1 MINUTE, 3 SECONDS OVER THE CONEY ISLAND BOULEVARD.

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had such speed and so much of it been crowded into such short flights of time. Four times was the minute mark beaten—twice by Fournier, in 51 4-5 sec. and 52 sec., once by Foxhall Keene in 54 2-5 sec., and once by Albert C. Bostwick in 56 2-5 sec.—all these with gasolene vehicles. Little less remarkable was A. L. Riker's mile in 1 min. 3 sec. in an electric skeleton—remarkable because it was the first flash of real speed ever credited to the electric conveyance.

"To your own doorstep in Harlem in less than fifteen minutes" or to your shooting-box in thirty, and in one's private conveyance, does not appear particularly unreasonable!

The world loves speed. All mankind would in some form indulge in it, if it but could. He who cannot, finds zest in watching him who can and does indulge. The thousands are ever ready to turn out and view the one. The love of speed is inherent and increasing in intensity. The automobile is spreading and will continue to spread the desire for swift and exhilarating flight through space. With the self-propelled vehicle, eight miles per hour is the merest dawdle, fifteen but a canter. As its numbers increase, its speed must be reckoned with. Of course, legislators, who themselves make laws only to break them, have already enacted measures of limitation, but there will come a time, and it is not far removed, when other laws must see the light. The human desire to save time, to annihilate space and that inherent love of swift flight must be taken into account and be heeded. The result? Speedways—exclusive routes for automobiles—subterranean street crossings, elevated roadways, bisected roads, each for particular conveyances! Let individual man permit his fancy to paint his own picture. None can speak with assurance. But the power—the pace of the self-propelled vehicle—will compel changes now too difficult of conception.

Ten years hence or less, the action of the mayor of Gannat, France, who recently decreed that "the speed of an automobile must not exceed that of a horse walking," and who further invited the citizens of Gannat to lend aid to the police, and "even protect public security by stretching across the road at the approach of these vehicles chains, ropes or strong iron wire" may appear as foolish as those who saw in the locomotive only an instrument of death and damnation. We all know what locomotives and steel rails wrought. Who will undertake to say what may be wrought by the locomotive which requires no rails and which will be within the means or at the disposal of every farm and family?

Only the performance of Charles M. Murphy, who on June 30th, 1899, maintained his equilibrium on a bicycle in the vortex of a Long Island Railroad train, and in that manner rode or was swirled one mile in 57 1-5 seconds, is comparable with the speed of the automobile.

Murphy's mile, however, was made under exceptional circumstances and with abnormal aids, and is, herefore, a thing apart; it occupies a peculiar niche of its own, and while interesting for reference, it is not a speed-standard in any sense. Perforce, there is nothing that runs on unrailed road or unrailed track that has records permitting of fair comparison with the automobile.

The horse may be dismissed from the discussion with the words that constitute the dismissal. The bicycle supplies the only records that even by courtesy may be said to begin to approach the whirlwind flight of the self-propelled vehicle on foreign roads, and these records—one mile, 1 min. 19 2-5 sec.; 5 miles, 7 min. 26 sec.; 10 miles, 14 min. 49 3-5 sec.; 20 miles, 30 min. 11 sec.; 25 miles, 37 min. 44 sec.; 50 miles, 1 hour 17 min. 44 sec.; 100 miles, 2 hours 45 min. 20 2-5 sec.; one hour, 41 miles, 1495 yards; 25 hours, 634 miles, 774 yards—were all made possible by the use of motor-driven tandem pacemakers. Compared with the track performances of the automobile, these records indicate, however, that, aided by pacemakers, the bicyclist is not so far outclassed as the uninformed are apt to believe is the case.

The records of the automobile itself are in unsatisfactory, if not chaotic, shape, and it is rather difficult to faithfully follow its development of speed. The causes are twofold: In this country practically no attention has been devoted to road racing; abroad, no attention has been devoted to anything else. Thus America may lay claim to all track records and short distance records, only to have them put to blush by the average pace maintained for long distances in the notable contests on the roads of France.

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It was only in the fall of 1900 that the automobile established a track reputation, so to speak. In that year, five race meetings were held; this year, eight meetings were conducted. The results, coupled with a mile in 1 min. 11 sec. made in France, afford the only comparisons on which the speed development of the vehicle may be based. Let the figures speak for themselves:

GASOLENE.

	1900.	1901.
1 mile.	1 min. 11 sec.	51 4-5 sec.
5 miles,	7 min. 43 4-5 sec.	5 min. 33 4-5 sec.
10 miles,	15 min. 9 1-5 sec.	11 min. 9 sec.
20 miles,	30 min. 30 1-5 sec.	25 min. 25 2-5 sec.
50 miles,	....	1 hour 17 min. 50 sec.

HENRI FOURNIER, WHO DROVE HIS FRENCH GASOLENE MACHINE ONE MILE IN 51 4-5 SECONDS OVER THE CONEY ISLAND BOULEVARD.

STEAM.

	1900.	1901.
1 mile.	1 min. 6 sec.	1 min. 6 sec.
5 miles,	10 min. 45 1-2 sec.	9 min. 40 3-4 sec.
10 miles,	21 min. 13 sec.	19 min. 5 4-5 sec.

ELECTRIC.

	1900.	1901.
1 mile,	2 min. 34 sec.	1 min. 3 sec.
5 miles,	10 min. 44 sec.	10 min. 28 sec.

The truest measure of speed development is furnished, however, by the records of the classic Paris-Bordeaux road race, (327½ miles), of which four have been held, as follows:

1895, 22 hours 25 minutes.
1898, 15 hours 15 minutes.
1899, 11 hours 42 minutes.
1901, 6 hours 11 minutes.

Words cannot add to the impressiveness of the astounding development told by these figures. From 22 hours, 25 minutes in 1895, to 6 hours, 11 minutes in 1901! It would be a sacrilege to say more.

With road racing tabooed or greatly restricted, even the French are making for the establishment of tracks, or motordromes as they style them, and a year or so hence it may be possible to say that automobile sport, to fetch the term, has really taken root. While the horse tracks which have been made to serve, lack the necessary banking to insure high speed with safety, it will require more than a banked course to make automobile racing either attractive or exciting. Not even its most devoted friend can hold to the contrary. The several contests held on American tracks have been devoid of even a suspicion of the elements that arouse the fine frenzy or warm the blood of the sports-lover. In truth, they have been little more than straggling processions, without life or dash or anything else calculated to evoke enthusiasm. It is for those concerned in its development to so classify or handicap the many horse-powers and weights and other whatnot, that genuine racing, not "runaways," may be the rule.

Regardless of what the future may hold, the present is crammed with actualities—with automobiles of every size and form and power, with automobiles at every price from $500 upwards, and capable of every speed from 20 miles to—shall we say—100 miles per hour? We at least have Fournier's assurance that a mile in 35 seconds is not improbable.

Of the three motive powers, electricity stands for safety and cleanliness, but for limited radius of use; gas stands for unlimited pace and power and range of action; steam is best described, perhaps, as the middle layer in the automobile cake.

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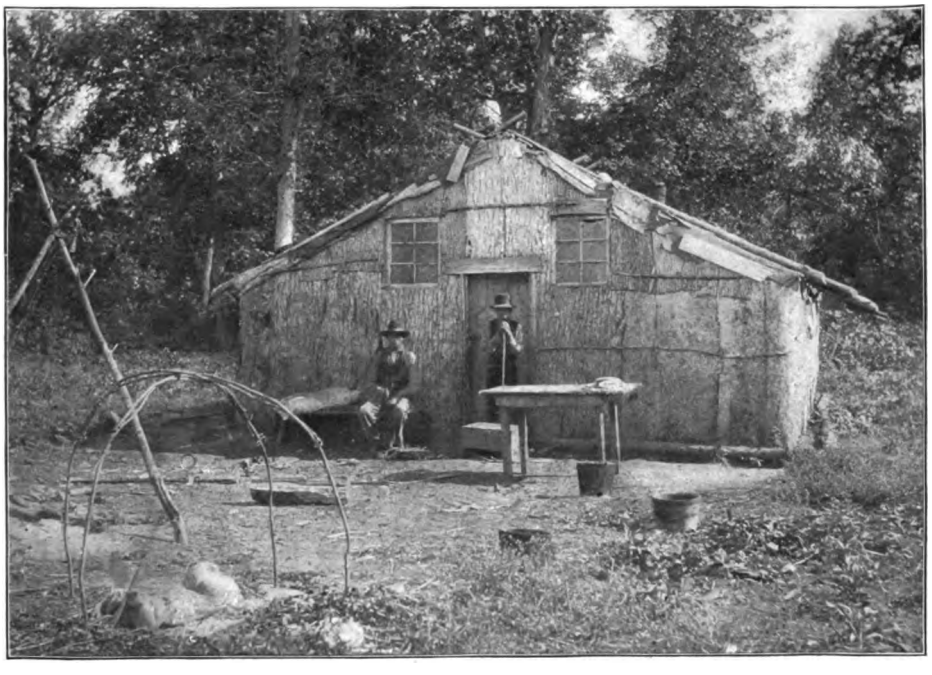
A NATIONAL PARK FOR MINNESOTA

By Katherine Louise Smith

THE true resort for seekers after recreation and recuperation, is near to nature's heart. There is a healing power in every breeze that bears upon its bosom the breath of pure forest air; and lake, brook, camp and canoe, have no equal in toning up the vital forces. We need breathing and resting places where man and nature can meet, and care and worry take to themselves wings and fly away. Once upon a time there were nearly everywhere spreading forests in this country to assist in the rejuvenating process of tired humanity, but for years we have been so destroying our pine timber, that extinction has become an unpleasant possibility.

In north-central Minnesota stands the only remaining pine forest which it is possible to save from destruction between the Rocky mountains and the Atlantic ocean. Men of science are confident that this romantic region was once inhabited by the mound builders. The Chippewa Indians have occupied this country for two centuries, and the Sioux Indians had lived here an indefinite time previously. Here is the historic spot where the great Father of Waters takes its rise and where lies that triangular height of land which is the spring and fountain head of the great rivers and lakes of North America. Is it not worth while that a portion of such a territory be preserved in its natural condition? Here is still a piece of ancient forested America. It is not comparatively much in the vast area of our boundless country, but it would be a priceless possession to the people of the United States.



ONE OF THE LITTLE CABINS ON THE WOODED PENINSULAS.

What reasons can be furnished Congress for creating this proposed National Park in Minnesota, to include reservations along Leech, Cass, and Winnebegoshish Lakes—in all 611,592 acres of land and 218,270 acres of water surface?

In the first place this forest is all government land within the confines of the

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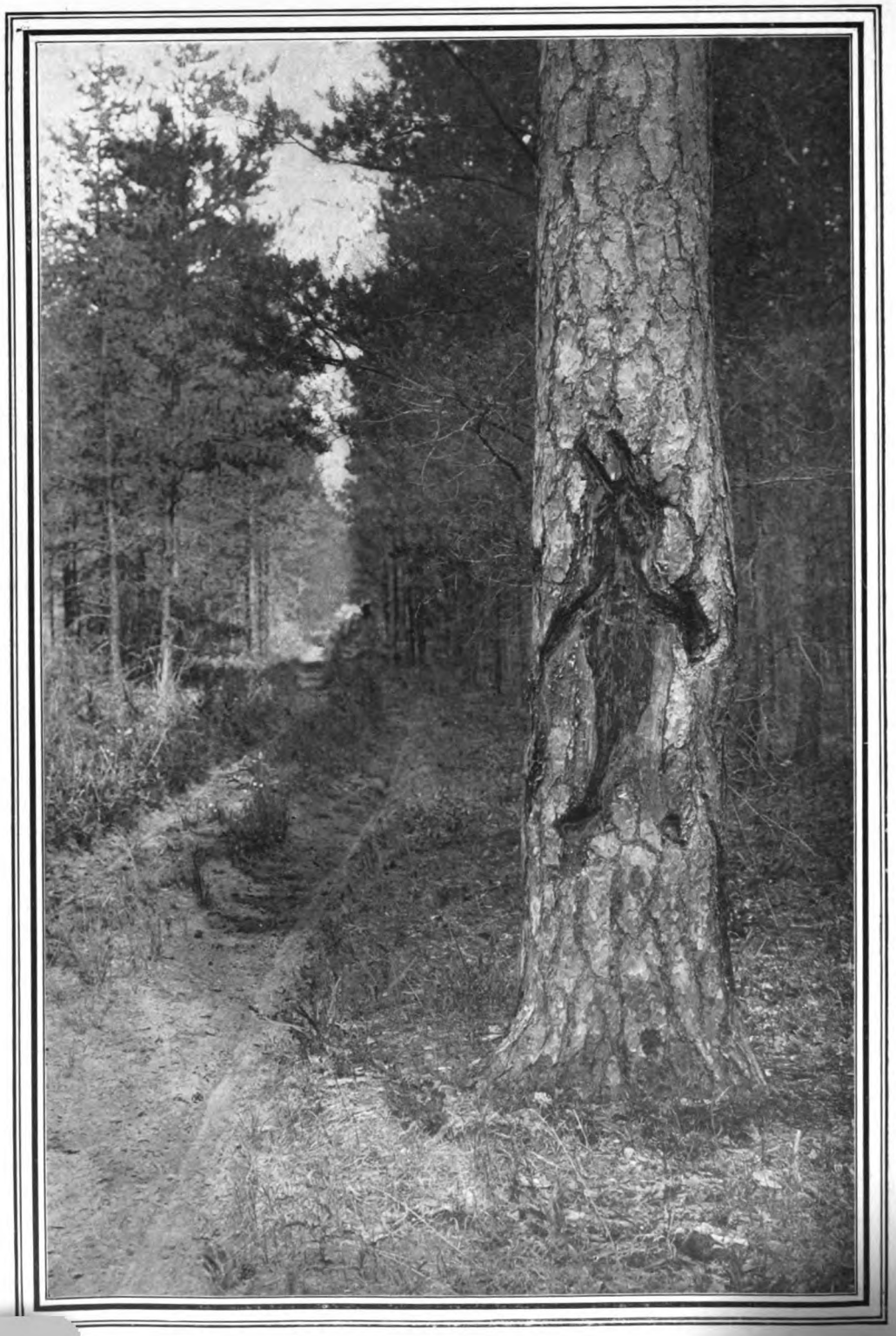

EST OF TREES STRETCHING
AS THE EYE CAN REACH."

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Chippewa Indian reservation at the headwaters of the Mississippi River, which creeps from its origin in Lake Itasca across the State, from west to east, before going southward on its long journey to the Gulf of Mexico. Within this circle of the river lies clustered a group of lakes for the possession of which the Dacotahs and Ojibiwas waged bitter warfare, and which the early voyageurs—La Salle and Marquette—enshrined in romance. For generations the red man has loved these mysterious spots, and the early traders bartered on their shores. Dearest of all to the Indian heart was the beautiful lake called "Ga-sa-ga-squa-ji-mai-gog-sa-ga-ai-gou," prosaically rechristened by the white man "Leech Lake." Here is primeval nature unmarred. There is an unusual brilliancy in the air, and a sparkle in the water of these forest lakes, whose surface is still undisturbed, save by the splash of an occasional canoe of an Indian gliding across the sheeny surface. There is, too, a constantly changing panorama on a gigantic scale. Here there is a growth of small jack pine closely crowded together, there a forest of trees stretching as far as the eye can reach, with glimpses of water in between, bordered with thick masses of tamarack. Running streams and scores of lakes intersect the land in a thousand ways. There are few such tempting spots for the student of nature. The invalid, the camper, the canoeist, the lover of the forest in all its pristine loveliness can enjoy himself within its limits as he can in few other places in this country. And no one who has visited the district ever leaves without expressing the wish and hope that it may be preserved intact for the people.

One of the chief charms of these lakes is the irregularity of their shore line. Around an arm of Leech Lake lie deep protecting forest-clad hills which rise with majestic effect. A little to the right stretch ten miles of narrows leading to the distant open water, whose shore line sinks beneath the horizon. Islands too abound. There are glorious stretches whose shores are wooded peninsulas on which are little log cabins and Indian tepees, with ancient trails leading through the wilderness where tradition says the fiercest battles between the Sioux and Chippewas were fought. At every bend of these lakes new vistas of shore and hill, woodland or open meadow greet the explorer. With its clean, magnificent border of white pine, Cass Lake is one of nature's gems. The trees on the south shore have been growing for a hundred years and extend to within a step or two of the beach. The lake is ten miles long and contains two wooded islands, the larger of which itself has a little lake called Helen nestling in its heart, and surrounded by timbered shores. The water of Cass Lake, which is remarkably pure, is shallow near the shore, making it an ideal place for bathing. Here can be breathed the purest of ozone. These splendid lakes with their inexhaustible supply of fish, the forests abounding in game, the maples and poplars overhanging the shores of innumerable bays and rivulets, would prove a blessing to the sick and city worn, from all parts of our country.

Among many desirable ends to be achieved by the establishment of a park at the headwaters of the Mississippi, that of a sanitarium is of surpassing importance. The rare fitness of this region for the purpose is seen in its pine forests, saturating the atmosphere with their healing exhalations; and in the springs of pure water. Here the invalid, especially the pulmonary consumptive, may find grateful shelter from chilling winds, and be made hopeful by the assurance that every breath he inhales is the vehicle of a medicinal remedy of reputed efficacy. It is remarkable as a testimony that tubercular disease of the lungs is very rare among the Indians who cling to their primitive mode of life. The healing agencies of this region hold out a promise of benefit to the neurasthenic, the overworked and the city-tired. Under national government, people could put up temporary shelters in the park and feel secure. The efficacy and curative value of large tracts of coniferous forests have been fully demonstrated by the large percentage of cures in the Adirondack regions and in the pine forests of Georgia.

The objection to using the land for a park, on the ground that the Indians will be deprived of their just rights, seems groundless. Many Indians have expressed themselves that while there have been grounds of complaint as to the estimating of pine lands on reservations, they would be satisfied to have this land paid for in

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bulk by the government. That the late Bishop Whipple who labored so long among these Indians indorsed the park project is an indication of the sentiment of the Chippewas. Any movement which would drive the Indians from their home is to be deplored, for the land is theirs. They are the most interesting aboriginal inhabitants on this continent and should be protected; but should this park be determined on their villages could be visited and their handiwork would find a readier market. There would be plenty of room for the Indians and visitors; and another problem would be solved in the employment furnished the reservation Indians as guides for fishermen and tourists, who will desire to visit the abode of a preceding and perhaps a prehistoric race.

This will be the only great park in the interior of the country, and it means much to the people of the United States and especially to every man, woman and child in the Mississippi valley. There is nothing impractical in the idea, and sentiment grows steadily in favor of it. It includes freshwater lakes whose shore line covers over five hundred miles, it holds its original population, its wild animals, and fish and birds. It is primeval nature, as God made it. No one can turn from these magnificent scenes without a prayer in his heart that the hand of commerce may be stayed, and the pristine beauties of this spot may be spared for the welfare of present, and, what is of yet greater consequence, of future generations.

A GRUESOME WAR DANCE

A DEER-HUNTING EXPERIENCE AMONG THE PAWNEE INDIANS

By Ernest A. Gerrard

OUR trouble all came from hiring the young Pawnee to carry in one of Arnold's deer.

We were camped in the thick willows on the Loup River between Timber Creek and the Cedar, and had been out three days. There was already considerable snow on the ground, more had fallen during the night, so that the walking was very bad.

On the morning of that third day we sat at breakfast discussing means of bringing in the two deer which Arnold had killed the evening before. It was just then that this Indian came down the river and turned into our camp.

As soon as we had hired him to carry in one of the deer we all set out together. After a long search Arnold found one of his deer where he had cached it in a snow-drift. The Indian promised to get into camp with it before dark. We went on for the other deer, which we found and undertook to carry to camp, packing it turn about. [illegible] snow was so deep that long before [illegible] in we were so tired that we could carry the deer but a few rods at a time. However, we did finally get to camp at dark and there found three Indians waiting for us. The other deer had not arrived.

While preparing supper we both threw our belts, knives and pistols upon the bed. After we had fed our visitors they told us that they were camped across the Cedar, up the Loup a very short distance. So after supper we decided to go with them and see if the Indian had gotten that far with our deer. We went without arms.

There was no moon; but the stars and the snow-covered ground made it quite light. The three Indians went ahead, breaking the trail, and we followed. They traveled very fast for some time; then they broke into a trot, which grew gradually faster and faster until we found it almost impossible to keep up with them. Finally we lost sight of them and began to suspect something was wrong. However, we concluded to follow on. They could not hide their trail in the deep snow, and [illegible] find our way back to can[illegible]

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After a while one Indian struck for the hills, making a large trail, seemingly to lead us after him. The other two went on up the river. We were sure their camp was not in the hills, so we followed the two up the river. Soon another trail, also large, turned into the hills; but we followed the remaining man up the river.

After a short distance the third trail turned into the hills. We stopped in the cold and the starlight to talk over the situation. Far away from over the hills came the shrill, whining wail of a lone coyote; then all was silent.

What should we do? Evidently the Indians had not intended to take us to their camp. We were only the more determined to find it. For we were now satisfied that the Indian had stolen our deer and had taken it to the Pawnee encampment.

We turned down to the river and went on the ice, where the walking was much better. The snow crunched under our stiff boots, the cold wind sighed past our ears, and the eddying flakes blew into our faces. The bright air was deliciously fresh, but on the snow-clad star-lit prairie nothing appeared to break the stilly whiteness, to tell us which way we should turn our footsteps. However, we traveled up the river several miles, until we were well tired out, and were about to give up the search, when we heard a far-distant muffled sound. Turning a bend in the river, we saw two glowing tents lit up with great fires within.

The Indians were camped in the willows on the west side of the river. Between us was a large air rift in the river, kept open by the swift current. We found a long log which we threw across the dangerous hole. Then balancing carefully, we walked over. To have fallen meant a certain death under the ice. We found no trail, so we pushed the willows apart and crowded through. In the clearing we discovered several other tents, most of them seemingly deserted. The one nearest us was well lit up. Numerous moving shadows played on its side. Much talking and laughter came from it. We went to it, raised the flap, and stepped in. The noise and talk stopped instantly.

The air was close and smelled of cooked meat. In the center a large fire roared. On it was a great boiling kettle of venison. We looked around. Each Indian had a rib of deer. A feast was on. We knew they were eating our deer.

After a time I asked, "Whose tepee is this?" A large fat Indian struck himself on the breast and said, "It is mine."

Arnold recognized him as Doctor Big Bear, and shook hands with him. The other Indians then resumed their feast. He gave us seats near himself, and we asked about our deer. Big Bear admitted that it was our deer, explaining that it was all right about the deer, that he and Arnold were just like brothers. I told him he should bring the part of the deer not cooked, the hide, and a good blanket to our camp and it would be well. Otherwise we would go to the White Father (the Indian agent), who would send the thief and Big Bear to Omaha in irons.

The Doctor smiled, then he said in Pawnee, "Whose deer is it? Did you kill it?"

I told him that Arnold killed the deer, but that we were hunting together as one man.

The Doctor turned to Arnold, who could not understand Pawnee, and said in English, "He-say-he-shoot-deer."

Nervously Arnold answered, "Yes, yes, he kill him, he shoot him."

I said to Arnold, "That will not do. They know I don't know where the deer was. The boy told them you killed it."

Then in Pawnee, to the Indian, I said, "Speak straight out from your mouth. We are here; speak straight out."

He turned to Arnold and again said, "He-say-he-kill——"

I was angry. I hit him on the side of the jaw just hard enough to show him I meant business. The other Indians had been talking and eating. At this a sudden hush ran around the lodge. It should have warned me.

Again I said to the Doctor, "Speak straight out from your mouth. We are here. Speak out."

The old rascal kept quiet a moment; then, calling Arnold brother, said, "You come-last-year-my-camp-Florence. He-say he-shoot——"

Hardly had his mouth closed when I hit him again. The blow twisted his head around sharply. Again the sudden hush ran round the lodge.

Then the Doctor drew himself back, shoved his hand under his blanket, and said, "*Kit-te-ko Te-sho-dish.*"

I answered, "Yes, very mad."

He said, "Perhaps you are looking for a fight."

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"Yes, looking for a fight," I said as I put my hand inside my breast, pretending to reach for a pistol.

So we stood glaring at each other. All was still; no one moved. At last three bucks rose. One passed out; the others sat down. Again there was silence; every one anxiously expectant.

Ere long, outside a squaw began a sing-song cry. Now her tones were low and mournful, low and mournful came the wail. Now it grew faster, faster and fiercer, ever more terrible. Revenge, defiance were her theme. Onward, upward hurried the wailing.

The bucks moved uneasily. I asked them why she cried. I received no answer. All were silent. Then to a boy I shouted, "Why does she cry?" "Because you hit her man," answered he, jumping up.

At this all the Indians sprang to their feet. More Indians crowded into the tepee. They talked and gestured fiercely. The excitement was growing. Arnold and I stood back to back waiting.

Some of the Indians began to move in and out still talking, still gesticulating. Soon a deer's hindquarters were brought in and flung at my feet, then the hide, then the forequarters, then more meat. And the smell of blood was added to the stench of close air, cooked meat, and Indian sweat.

I said to Arnold, "Say all. Tell them to bring it all. Fight for time." Then I added, "There are some red-hot irons in the big fire. We must grab them, strike right and left, and break for liberty. We can get away before they realize what we have done."

"No, no," he exclaimed. "We can't do that. There are too many. Let me fix it."

The Indians had quieted down some, watching us, awaiting our next move. Arnold turned to the Doctor, took the rascal's hand and said, "We are brothers, take the deer, it is wicked to fight."

The Indian smiled, and his beady eyes gleamed treacherously.

Outside the war-song had begun again. More meat, cooked and uncooked, was hurried in and thrown at my feet. The excitement was swiftly growing. The Indians moved around us in a circle, all muttering, all swaying their arms and their legs. Soon the circle began to move. One Indian inside took up the war-song. Others joined in the wailing chant; the [illegible]e war-dance was on.

We folded our arms and looked about. As yet they were afraid to attack us.

Round and round went the dance, faster ever faster. Fiercer and fiercer grew the song. Sweat began to stream down our faces. The air was hazy with smoke, and dust, and stench. It was hell.

Then I thought swiftly and remembered that I knew Spotted Horse, one of the chiefs of this camp. Eagerly I looked for the young chief. He was not to be seen. I despaired.

At last a young Indian came in. He seemed to have just arrived at camp. I looked fixedly at him, until he seemed to be conscious of myself alone. Then in Pawnee I said, "Go tell Spotted Horse to come here. His white brother wishes to speak to him. Go." The Indian immediately raised the flap of the tepee and disappeared.

Some of the dancers noticed this. The dancing quieted down. The leaders started after him.

Then again Arnold said good-bye to the doctor and we started to go. A crowd immediately stepped in front of us. They pointed to the meat and gestured fiercely.

We took our old positions, acting brave, though feeling dejected. Soon the leaders returned, and again the circle was formed. Wilder and faster the dancing grew. Round and round went the circle. More Indians crowded in. A squaw stirred the fire. It roared, and crackled, and long pointed red flames leaped into the dark air, lighting up the cruel faces.

One Indian drew his knife, then another, and another. One left the surging circle and danced toward us, singing wildly, and slashing the air excitedly.

"God; it's hell!" muttered Arnold.

"We've got to grab those irons," I said. "Are you ready?"

"Yes."

"It's our only chance."

"Let's risk it."

"Ready!" Our muscles were tense for action. But just then I saw Spotted Horse's head thrust into the tepee. "Wait!" I cried.

Spotted Horse gazed about a second until his eye fell on us. Then he hurried in, flinging dancers right and left, elbowing his way straight to us.

We each grasped one of his hands. He slyly smiled at our sighs of relief, and said, "You-heap-bad-scare?"

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"Yes," I laughed nervously, "heap bad."

The Indians quieted down quickly and one by one sneaked out of the tent.

Spotted Horse led us to his tepee, and gave us seats with him on the raised part, which was covered with robes and blankets. I told him our trouble, and the cause of it. So he promised to bring us the deer and a good blanket the next day. We thanked him, shook hands, and started back to camp.

Throughout the Indian village all was dark and quiet, not an Indian in sight. We hurried on silently for a mile; then, feeling more secure, we began to talk over our narrow escape.

At our camp we found everything as we had left it. But we did not sleep much that night. Early the next morning we heard Spotted Horse call. We looked out, and saw only an Indian pony some forty yards away. When we answered, the chief appeared from behind the pony. He unloaded the meat, cooked and uncooked, the deer's hide, and a very poor blanket. Then he jumped on his horse, yelled goodbye, and started back.

We laughingly cried after him, "Spot, oh, Spot! We said a good blanket!"

He laughed, waved his hand, and galloped away. He knew we were glad enough to get off with even a poor blanket.

That day the Indians moved on up the river. We stayed several days longer, and enjoyed our hunt without molestation.

COLLECTORS AND COLLECTIONS OF PISTOLS

By John Paul Bocock

THE ancient and honorable right to bear arms encouraged the collection of rare and valuable weapons from the earliest times. The arms have changed, but collectors are quite as enthusiastic. They are far more learned than they were in the times when a man took captives "to his bow and spear." The bows and spears of the conquered went to swell the collection of their captor, and the most successful warrior soon came to have the best collection of arms. Jeweled or precious weapons were brought by the Crusaders from the East and inflamed not only the cupidity of the feudal chieftains, who saw them introduced for the first time into the armories of European castles, but also excited the ambition of the armorers, who formed important personages in the train of these feudal knights. Before very long the goldsmiths and silversmiths of Spain and Italy were at work inlaying sword hilts and firelock barrels, with such success that some of the great ones of the craft could afford to spend months of patient skill [illegible] barrels or the butts of a pair of [illegible]

Precious arms of this descripti[illegible] in the collections of some of [illegible] mentioned in this article; notably those of Dr. James Brown Thornton of Boston, and Mr. Giovanni Morosini of New York. Each collector has his own point of view and from that coign of vantage decides whether or not he desires to add to his collection the odd pieces he hears of, now and then, from queer shops, in far-off cities, in auction houses, or perhaps of junk dealers near his very doors. There is a guild of collectors and a chain of shops, mostly on side streets and in remote localities, in almost all the cities of the United States, from which word goes out to the notable men in that specialty of bargains to be had.

In Philadelphia Mr. W. Stokes Kirk, in Pittsburg Mr. J. H. Johnston, in Brooklyn Mr. J. J. Dimock, in Rosemont, Pa., Mr. Francis W. Breuil, have notable collections. Mr. Morosini's armory at Riverdale-on-the-Hudson has absorbed many thousand dollars and borne witness to the loving expenditure of much taste and [illegible] Dr. James Brown Thornton, in [illegible] has what seems to be the most com[illegible]ction of hand weapons in the [illegible]es. Major Charles C. Foster

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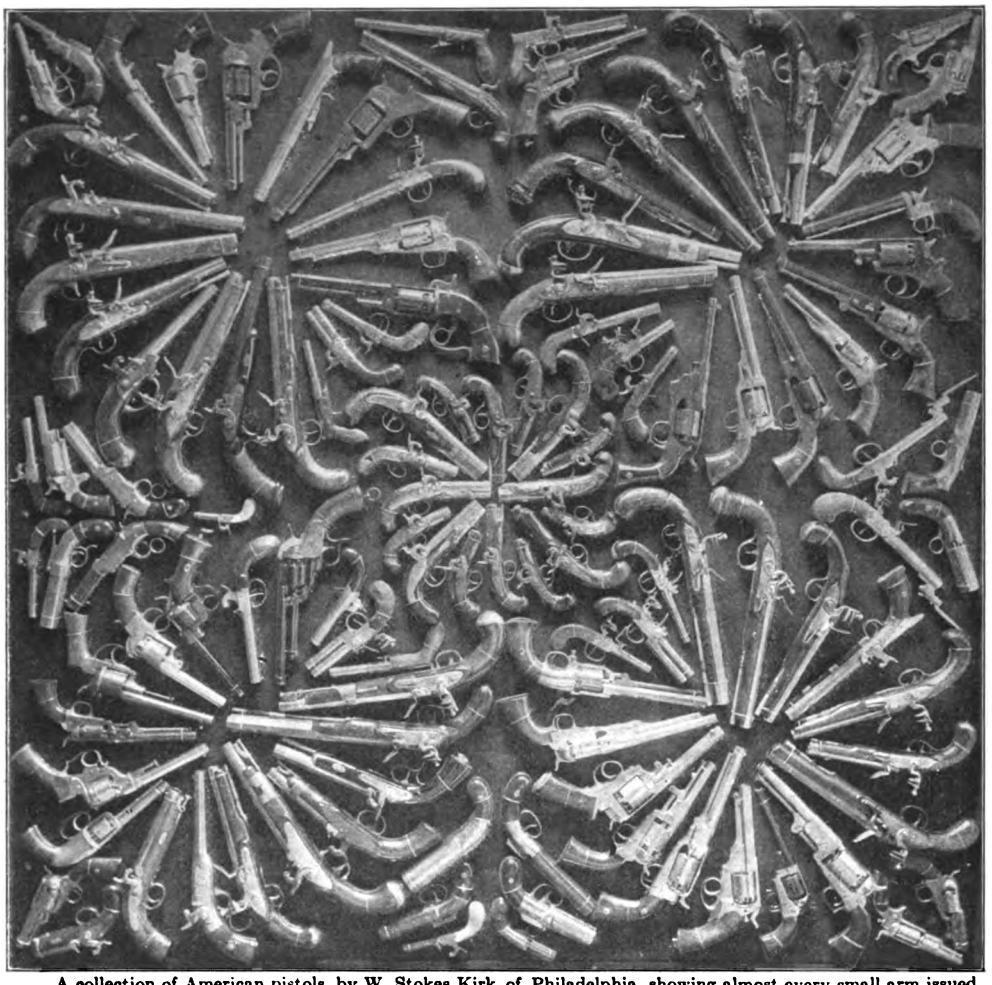

A collection of American pistols, by W. Stokes Kirk of Philadelphia, showing almost every small arm issued to the troops of the U. S. from 1776 to the present day. There are 408 varieties of pistols and revolvers, of which 120 are shown in this photograph, many of them having come into Mr. Kirk's possession from the descendants of the soldiers who carried the arms on the battlefield.

Many of the small percussion pistols introduced about 1836 and continued until 1868 are shown here, from the manufacture of Derringer, Allen & Thurber, Colt, Remington, Whitney, Allen & Wheelock, the Manhattan Arms Co., Butterfield, Maynard and others. The U. S. pistols of official issue date from 1808 to 1834 in flint-locks and from 1845 to 1852 in percussion locks.

of Cambridge, Mass., a retired surgeon of the United States Army, has a complete assortment of the various flint-locks used in the army service. Mr. Francis Bannerman of New York has become the owner of at least two distinct collections, made with care; the one by Lieutenant Garvin of the New York Fire Department, and the other by a gentleman of Philadelphia, who consoled his bachelor leisure by collecting pistols and then married a lady who could not bear a firearm in the house—which compelled him to part with his ante-nuptial pets. Mr. C. Murray Ogilvy has a small collection in Montreal, mainly of beautifully finished Scotch pieces which came to this country in the last century. Captain J. Len Ballard and Captain M. T. Long of Kentucky are the owners of small but unique collections of pistols, each of which has a story of its own. General Cassius M. Clay of the same State—in which, by the way, the recipes for shooting a pistol and making a burgoo are handed down, hand in hand, as it were, in the very oldest families—has another collection, attempts to photograph which for the purposes of this article have been unsuccessful. General Clay pre-

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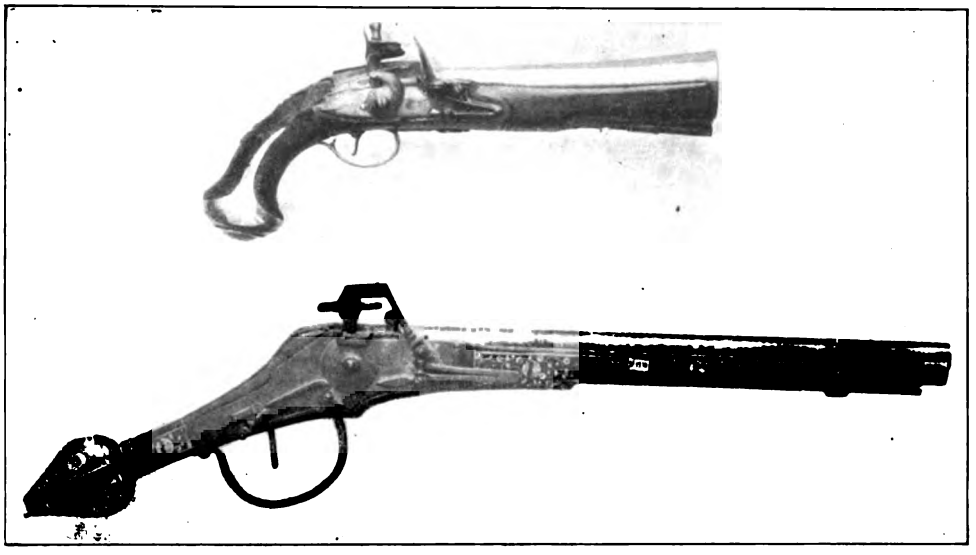
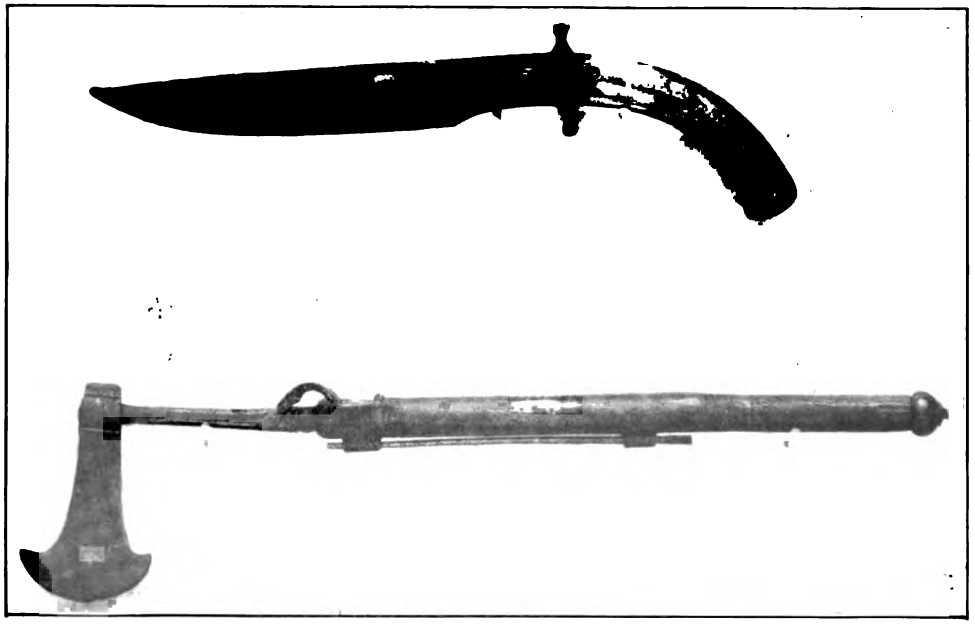


(a) Blunderbuss pistol; brass barreled; bell-mouthed.
(b) Carved and inlaid wheel-lock; from the collection of Dr. James Brown Thornton of Boston.

fers to keep his weapons where they can be used at short notice.

Dr. Reginald H. Sayre of New York, whose skill with the revolver and practical knowledge of that most useful development of the pistol resulted in his election to the presidency of the United States Revolver Association, has a number of beautiful pistols in which he takes a pardonable pride. In fact, there seems no limit to the number of collectors, or to their modesty.

An instance of the born collector who develops in out-of-the-way places is Mr. W. A. Hatch of South Columbia, New York, who began some years ago to fancy odd pieces of china and while looking them up,



Knife and hatchet pistols, archaic types, from the collection of Dr. Thornton.

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Group of American cartridge pistols from the collection of John Paul Bocock, showing: A, the earliest type of Smith & Wesson revolver; B, the Schofield Smith & Wesson; C, the "Spanish" Smith & Wesson; D, the Hammond bulldog; E, the Remington single-shot army pistol; F and G, Remington derringers.

in remote farm houses, would happen now and then upon curious old pistols, Queen Anne muskets, and even flint-lock pieces which went out in the Forty-five and still have G. R. and a coronet distinctly marked on their locks. From collecting china, Mr. Hatch soon got to collecting pistols, a habit which, when once formed, can only be extirpated by the surgeon's knife or some anti-germ virus not yet discovered. In this way he was enabled a few years ago to secure such a unique trophy as a pair of flint-lock duelling pistols made in the United States by the first American pistol maker, S. North of New Berlin, Connecticut, whose output since that day in 1813 when he got a contract from the United States Government for 500 horse pistols has been dearly prized by all fanciers of American arms.

Dr. Thornton's array of hand weapons in his Boston residence is not excelled by that of any collector on the American continent. The doctor takes pains—and pleasure—in visiting at intervals the collections of his competitors and friends and has been largely instrumental in establishing that chain of collectors' headquarters in which the guild are wont to look for prizes. His pistols, of which some excellent photographs are reproduced, number about 375, without duplicates and constitute an extraordinarily complete and valuable collection. The illustrations show a number of its prize pieces. The connoisseur will delight in the beautiful double-barreled flints, two of them with superposed barrels. The only pair of all-metal flint-lock double pistols I have yet discovered came to me through Valerien Gribayédoff from an auction sale at the Hotel Drouot some years ago. They were chased steel from butt to muzzle, with cannon barrels. Dr. Thornton's have handles of carved and inlaid wood. The quaint daggs, with their square butts, and belt hooks to support them at the waist before the days of holsters, photographed in the Thornton group of three, are almost worth a journey to Boston to see.

Major Charles C. Foster has made in Cambridge a complete collection of the pistols and revolvers, carbines, rifles, muskets and swords, which have been adopted either definitely or tentatively in the United States Army. This of itself is a selection of which the historic study is

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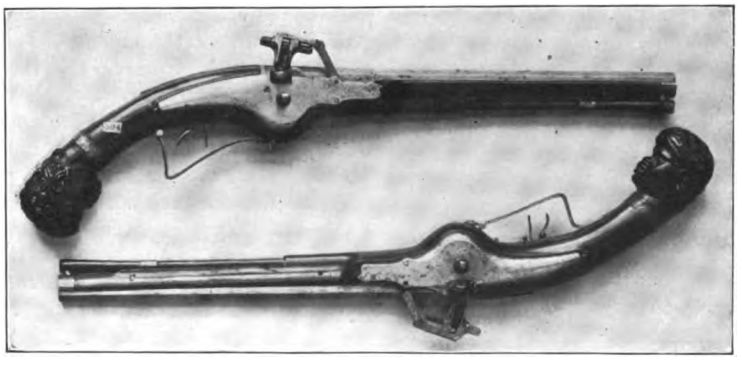
Match-lock and other rare pistols, from the collection of Francis W. Breuil of Rosemont, Pa., who owns a match-lock arquebus traced back to Pizarro, and has ransacked the towns of Spanish-America for specimens. A, is a Japanese match-lock, silver inlaid; B, Japanese match-lock, improved Dragon inlaid; C, Ketland & Co., duelling pistol; D, Swedish holster pistol, Medinger, Stockholm; E, Blunderbuss pistol, brass barreled, Bond, London; F, Belt pistol, Bond, Cornhill.



Valuable pair of wheel-lock pistols with carved handles, from the collection of Dr. Thornton. The wheel-lock was the type immediately preceding the flint-lock. Wheel-lock pistols are rare and costly.

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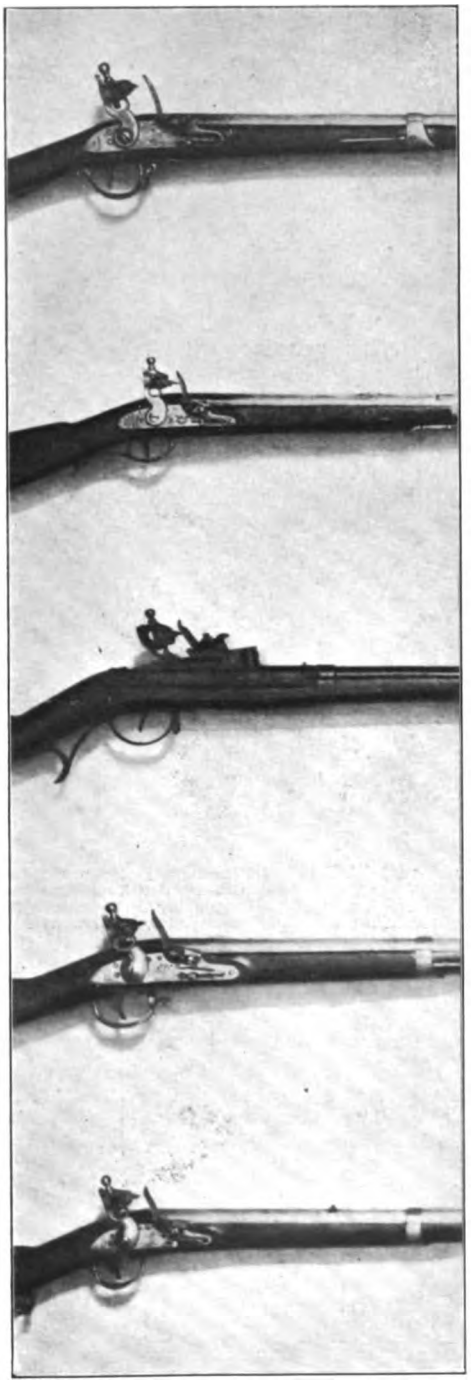

Comprehensive group of American flint-locks from the collection of Major Charles C. Foster of Cambridge, Mass., who is an authority on the evolution of the pistol in the United States.

profitable alike to the artificer and the collector. The efforts made by the United States, since the first contract for flint-lock single-shot horse-pistols was given out in 1813, to arm the troops—cavalry, infantry, artillery and marines, with an appropriate pistol, have been varied and eventful. All sorts of experiments have been tried and scores of different types adopted and discarded. An instance in point is the Schofield pattern of the Smith & Wesson revolver which was made by that well-known firm of manufacturers after a suggestion by Major-General Schofield, U. S. A., but was later on discarded in favor of the Colt. Comparatively recently, however, all the weapons of this type on hand in the armories of the United States were, according to the custom in such cases, sold at auction to the highest bidder, and the Schofield Smith & Wesson, like so many of its predecessors—all good weapons for the time—passed out of history and became a curio. Major Foster has just secured to the completion of his collection—and his happiness—a United States Mounted Infantry revolver, with the letters "U.S.M.I." engraved on the cylinder. That is another of the rare weapons now prized by collectors, once issued by the Government to arm a special branch of the service, and already so difficult to obtain, even by those who do not hesitate to pay, that its very existence is denied by some. Very few have seen the piece.

The pride of Dr. Reginald H. Sayre's small arms is a pair of pistols, each one and a half inches long, chased with gold and set with rubies. Their triggers fly out, when the hammer is raised, being for the rest of the time invisible in the small niche on the under side of the lock made for that purpose. The powder flask from which they are loaded is just ¾ of an inch in length, and the whole outfit is complete with tiny bullet moulds and cap box in a leather case 2½ inches long. That, of course, is a curio as such things go. Of the Sayre collection, however, the choicest piece to the expert is the flint-lock revolver shown in the illustration, made by Dolep, in London, long before the days when the percussion cap came into the world of arms as a revelation of usefulness. The Dolep "revolver" demonstrates that there has been as little novelty in firearms as in anything. When the percussion lock received the addition, in the days of our

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Daniel Boone's flint-lock, now the property of Capt. J. Len Ballard, of Richmond, Ky. The pistol—from which the wooden grip has rotted away—was dug up on the site of the cabin where Daniel and his brother Squire Boone camped, in 1772, at House Cove, in Madison County, about 16 miles from Richmond, near Blue Lick Knob, afterwards the property of Captain Ballard's grandfather. Here Squire Boone erected a huge stone monument, cut his name and the date, 1774, deep into it, and for 118 years this rude limestone pillar stood as a silent and lonely reminder of the early and perilous days of the "Dark and Bloody Ground." This stone was dug up and hauled by oxen to Richmond and presented to the County by Capt. Len Ballard about 1892. It stands in the court yard surrounded by an iron fence, and last summer Miss Helen Gould, of New York, paused to have a photograph of it taken. The flint is still in place and the pistol is loaded, the leaden bullet being plainly visible, never having been discharged since it was dug from its resting place.

A group of rare early American horse pistols, made by the first official American pistol maker, S. North, who made 500 horse pistols for the government in 1813. They were flint-locks, of the type shown on the left, subsequently, with the other flint-lock arms in the government armories, altered by Act of Congress to percussion lock. Next in the group is the North flint-lock of 1818, and next the flint-locks of 1821 and 1828 altered to percussion. From the collection of Mr. Bocock.

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Three flint-locks from Dr. Thornton's collection; the upper two are a pair of sash-pistols, showing the belt hook; beautifully inlaid; the butt is cut square, after the pattern known as the dagg.

grandfathers, of a revolving cylinder made by Samuel Colt, the immediate value of the discovery was recognized all over the world and the Colt patents in the late thirties were issued just as freely in Great Britain as here. Dr. Sayre's flint-lock shows that there were gunsmiths cunning enough many years before Colt to adjust a multiple charge chamber to the old complicated flint mechanism. But the Dolep weapon remained simply a curiosity, and found its way into an ash heap; whereas the utility of the Colt invention as an improvement on the old single-fire flint-lock and percussion lock enabled him to sell between January 1, 1856, and December 30, 1865, 554,283 of these American revolvers, to-day recognized everywhere as a happy combination of the useful and the forceful.

In the collection now in the Hartford Athenæum, which was made by a hard-fisted boniface in a small New England city, because he saw that the display of firearms attracted wayfarers to his tavern, and which is, in the number of its pieces and the curious diversity of their patterns, one of the most extraordinary, there is a magazine flint-lock rifle. This is well known to experts in firearms as the Cookson gun, made by John Cookson, in London, in the days of Good Queen Bess, before the Spanish Armada sailed up the channel to destruction. Cookson may have had something of the same idea in 1560 that Colt had in 1836—when he received from the United States Government an order for 1,000 pistols with "a rotating cylinder containing several chambers, all of which discharge through one barrel." Cookson's magazine rifle had a capacity for ten rounds, "all of which discharged through one barrel," but Cookson could not bring his piece into practical use and Colt did. So the name of Cookson passed from the earth until his gun turned up as a curio in the tavern, whose collection of arms finally outgrew its limits and had to find an abiding place in a public building at

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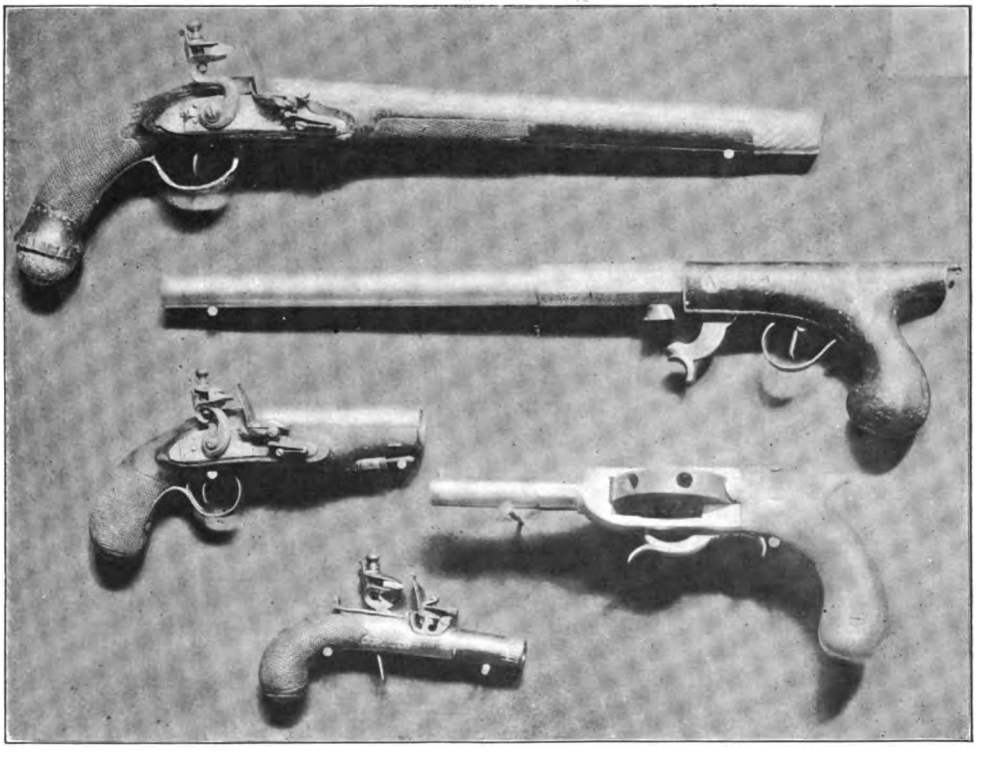
The double-barreled flint-lock pistol here shown is in the collection of Dr. Reginald H. Sayre, of New York. It was made by L. Walker, London; the butt is chased and inlaid with silver. The button on the side of the lock turns one vent in the pan, together with the powder inclosed, so that it does not connect with the barrel Each barrel may thus be fired by itself, without the necessity of repriming. The rings back of the hammer and over the trigger guard are merely the photographer's mounting and no part of this beautiful arm, which is almost a duplicate of the pistols marked B, with a coronet, which were sold recently at 13 Wellington St., Strand, London, in the auction of Byroniana.



Group of characteristic pistols from the collection of Mr. J. J. Dimock, of Brooklyn. A, is a flint-lock duelling piece, made by "Walklate, London," about 14 inches long and of the type used by Aaron Burr when he killed Alexander Hamilton at Weehawken. The tip of the pistol is ivory and the butt is silver trimmed. B, is a poacher's pistol of about 1848; C, is a curious flint-lock made by Calderwood, Dublin, about 50 caliber. D, is a unique American monitor-type arm, made by C. B. Allen, at Springfield, Mass., after Cochran's patent about 1837 or 38; E, is a gold frame superimposed pan flint-lock, five inches long, made by Barnet & Son, London.

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Double-barreled, super-posed flint-locks, from Dr. Thornton's collection.

Hartford, where it remains a monument to the opportunities of a day now past.

The strong features of Mr. Dimock's collection are indicated in the picture. The student of pistol mechanism will note the odd grip characteristic of the gamekeeper's pistol, with its deer's head inset in ivory, and the unique "monitor" revolver, as it is called for lack of a better name, which is an example of perverted ingenuity. The scheme of a revolving turret, or "deck," pierced by pistol barrels, with a percussion cap to fire each from below, does not commend itself in small arms.

The salient specimens in the group shown from the collection of Mr. Francis W. Breuil of Rosemont, Pa., are the two Japanese match-lock pistols—much rarer than match-lock guns. Mr. Breuil swam out from Nagasaki to his ship at anchor, a half mile off shore, with these pieces in his belt. The match-lock pistols of Europe —the first modification of the crude tube with a touch-hole, for a match to be applied by hand, as shown from Dr. Thornton's collection—were not nearly so graceful in outline as the Japanese forms. In Europe they were superseded very quickly by the wheel-locks, upon the ornamentation of which small fortunes were spent.

Mr. J. Charles Davis of Lawrence, L. I., has a number of revolvers of different patterns, several rare flint-lock pistols and a fine specimen of the earliest percussion pistol made in the United States, by Allen. Mr. John S. Humes of Jersey Shore, Pa., has some well-selected pistols. The Clerk of the Municipal Court of the City of Providence has spent a good deal of time and money on his collection.

In his recent review of the art of "War," Sir Charles Dilke expresses doubt "whether in future wars" it will be possible "to employ cavalry on the field of battle," and thereby implies a doubt of the usefulness of the pistol. The automatic pistol invented by Colt and now proven to be an effective weapon at 500 yards, firing a shot a second, with smokeless powder, must be taken into account in the wars of the future. No artillery battery need fear a rush by either cavalry or infantry if individually armed with these automatics. For infantry and cavalry officers' sidearms, the new piece seems as long a step ahead as the Colt "Dragoon" six-shooter was in the Indian fights in Texas over the single-barreled percussion-cap sidearm of the Lowmoor type. Yet the Colt arms, in all their varieties, have actually marked the successive developments of small arms in the United States, for a half century, with a patient skill and clever initiative which have not yet received the scientific recognition they deserve. Of all the machines devised by American ingenuity, the revolver is one of the most perfect. It is the most compact, least likely to get out of order and most useful of all the small mechanisms. There is no other that can be compared to it. Even the Red men in the frontier wars learned how to improvise or duplicate the parts of a Colt, not to speak of their adroitness in using it from the back of a mustang!

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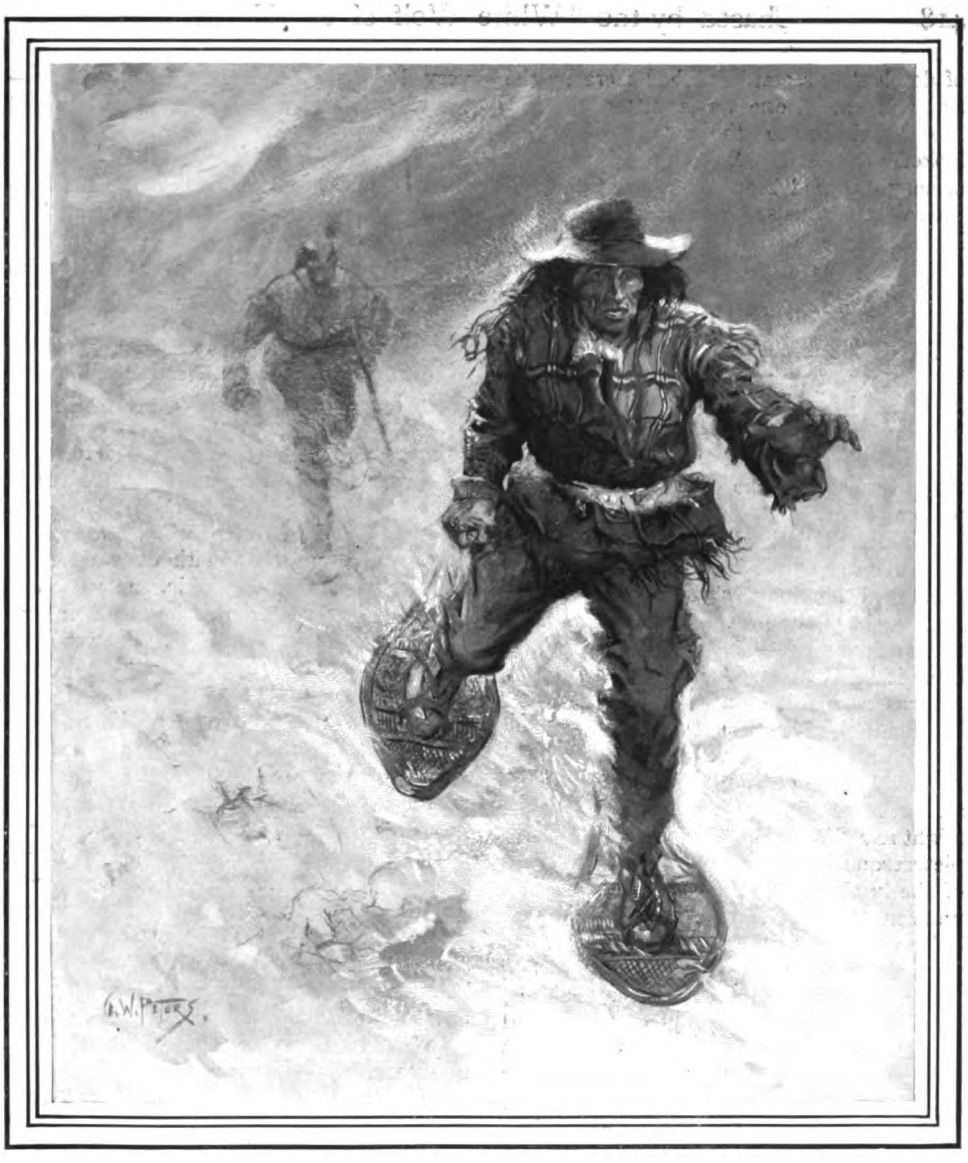

"HE NEVER HESITATED NOR SLACKENED."

CHASED BY THE "WHITE WOLF OF THE NORTH"

By Edwyn Sandys

WE were in the caribou country. Far north, wrapped in his white shroud, lay Mistassini sleeping through the long white silence until Wa-Wa called him. Nearer, to the left, lay the Big Flat Water drowsing under a pallid coverlid a fathom thick. Over all sprung an arch of mysterious gray that seemed to draw in and narrow slowly, silently, ste ily, while we looked. Far as we could stretching in one soundless cordon they dwindled in -e to mounds, stood wh- -rdy fers. Now they r

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of death they seemed, pitched there by the army of the Arctic for a bitter bivouac. We stood before the small cabin and looked eastward. No sign of the sun although he had been up an hour. Somewhere behind the sad gray veil he was shining with the wonderful brilliancy of the North, but that day he would cast no velvet shadows for us.

"Well, wot ye tink?" inquired Joe.

I hardly knew what to say. Something in the feel of the air, in the pervading grayness counselled caution, yet here was the last day of my leave and as yet the twelve-gauge had not spoken to the game I particularly wanted—the ptarmigan in its full winter plumage.

Joe waited with all the patience of the Indian cross which browned his skin and blackened his long, straight hair. What he thought of the prospect did not matter, nor would he tell—his kind never do until after it is all over. All he wanted out of me was a decision one way or the other. If I said "Go," he would lead away north without a word of comment; if I said "No," he would merely go into the cabin and lie and smoke. Perhaps toward night he might say "We'd best gone." He was a picturesque looking tramp in the gay garb of the lumberman. How much he had on underneath I could only guess, but it was quite enough to spoil the outline of what was naturally a beautiful, lean, strong figure. On his head, six feet from his heels, was a shocking bad hat, a black felt he had picked up somewhere. Bad as it was it stuck on and shaded his eyes. His long hair protected his ears and that was sufficient. Only his small, narrow feet were Indian. They were hidden in as pretty a pair of moccasins as I had seen. But a glance at his face told the story. Somewhere not far back in Joe's pedigree lay the cross, and in this case the blending of the blood of the indomitable voyageur with that of the redskin had produced a grand man—game, untiring, wizard of woodland, a child till the hot blood was roused; an Indian when the devil was unchained.

For a few moments I hesitated. If I could only translate the flash of the wonderful aboriginal eyes or guess what lay behind the mystical bronze mask—but that was impossible. Once more my eyes turned northward. The grayness seemed a trifle paler, and a puff of air, keen as if from the very Pole, met me. "Looks like snow—too cold to snow," I muttered, then added louder:

"We'll try it."

The black eyes twinkled an instant with an indescribable flash, then he turned into the cabin. As I followed I heard him give utterance to a peculiar low grunt, which might have meant anything or nothing. I would have given something to have been able to translate it, for beyond question my decision had raised or lowered his estimation of my woodcraft and general qualifications. I acquired wisdom later.

Within five minutes we were ready. Joe had carefully watched the flask, sandwich, shells and tobacco go into my pockets, and again had grunted softly when I examined my matchbox. Then without a word he led the way on the creaking netted shoes which alone rendered walking a possibility. He was a mighty pacemaker. Snowshoeing is the hardest of hard work and Joe certainly showed me all there was in it. Before half a mile had been covered he had me fumbling with mittenless hand at the unruly button at my throat, and by the time a mile lay behind my forehead was damp in spite of an air that nipped like a mink-trap. At length we reached the edge of a tongue of fir-woods where Joe paused. Before, spread a mile-broad open where some old fire had bitten to the bone. In summer this was an artistic expanse of lichened rocks with low, lean scrub between, now it spread like a frozen sea with stiffened billows half-buried in purest snow. For minutes he stood while his eyes scanned every yard of white from his feet to the irregular skyline.

"Mebbe car'boo," he muttered, as he rolled his eyes toward a slight depression which I should have passed by. Then he stooped and thrust his hand into the snow.

"Big bull—old," was all the comment he made as he straightened and again led the way.

Evidently the open had no attraction for him, for he swung off to the right keeping along the edge of the cover. Here what breeze there was had full sweep and it nipped keenly at the nose, cheeks and chin. Already my heavy mustache was burdened with ice and a certain caution about breathing had developed. But Joe did not appear to bother about trifles like that, although his bronzed face did show a warmer

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color. His steady, remorseless gait never changed and the rear view of him suggested that he was apt to go on till spring. Nor was the shoeing easy. The old snowshoer will understand what the conditions meant, and while I was in very fair form and no mean performer across country, I thoroughly realized that there was an iron man ahead. This, too, while merely following a pacemaker—a very different matter from leading.

It was perhaps an hour later when he halted and blew a great cloud of steam from his lips. I understood, and at once produced the flask and poured him a fair measure into the metal cup. The good stuff fairly fell into him—but an Indian's an Indian.

"You no take?" he queried, while a surprised expression flitted across the chasm which had entombed his share.

"Bad for eyes—snow bad enough now," I retorted, as I put away the flask, for Joe's eyes seemed to say that if I didn't intend to take any, he might as well have my share. But that was not in order.

Instead of moving forward, he smiled and pointed at the snow. "Thur," was all he said.

I looked and saw one, two, three—a dozen tiny trails, as though elfin snowshoers had passed that way. They were queer little tracks, roundish, indistinct, running in single lines, the rear rim of one almost overlapping the fore rim of another. Never had I beheld the like. By the size of them their makers should have been of considerable weight, yet they barely dented the snow. Their arrangement was grouse-like, and in a moment I had it. Nothing but the wonderful snowshoe foot of the ptarmigan could leave a trail like that.

"Snow-grouse—white—eh?" I asked.

He nodded.

"Fresh—where 'bouts?" I continued.

"Look—look lot," he replied.

A twinkle in his eye warned me that I had better be mighty careful and I felt certain he had already seen the birds. But where? Standing perfectly still I first scanned the snowy trees. Nothing there. Then, remembering the ways of the quail and the many times I had detected birds upon the ground ahead of the dogs, I began a close scrutiny of the snow a few yards ahead. Presently a shiny ebon point caught my eye, then a dull point equally black—then, as if my eyes had suddenly become properly focused—I made out the soft white pigeon-like form of a ptarmigan crouched upon the snow. Then another and another showed until I could plainly see seven birds in all. They were from about eight to ten yards distant and as motionless as so many snowballs which they greatly resembled.

My right hand rose slowly to my frosted chops, teeth seized the point of the heavy mitten and the bare hand slipped forth and closed upon the grip. In five seconds the steaming hand felt the nip of the air and the apparently red-hot touch of metal. Then I let the mitten fall from my mouth.

Purr-r-whir-r-burr-r! The white forms rose something like quail, but lacking the hollow thunder and impetuous dash of the brave brown bird. Even as the gun leaped to shoulder I realized that the white ghosts were not going so fast, but true to old quail training, the trigger finger worked as though dense cover was only two yards instead of a mile away. The first bird stopped—shattered—within twenty-five yards, and the second, not more than five yards beyond its mate. Joe grunted like a bull moose, then dashed ahead, and I chuckled as I remembered that this was the first time he had seen a "squaw-gun" in action. But, instead of going direct to the birds, he chased on with long strides to a point sixty odd yards beyond, and stooping, picked up a third ptarmigan which had managed to get into line with the second. This he triumphantly retrieved. Beautiful snowy things they were with the cold white sparks powdering their spotless covering and sticking to the hairlike texture of the poor little snowshoes. Two were perfect for mounting and even the shattered one might, with extra care, be saved. So far, so good. I had killed my own specimens and added a new bird to the score of the veteran twelve-gauge.

I pocketed the birds, broke the gun, put in fresh shells and, on the strength of an easy but clean kill, produced the flask. As Joe took his dose, I noticed his face. Instead of the customary grin, it showed grave and solemn as an owl's. The sparkle of the eye, too, was missing and when the sight of a drink didn't make Joe's optics gleam something surely was amiss.

"You foller dem?" he tersely queried, as I made a significant motion. I was somewhat astonished.

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"Bad luck. Kill dem. Look dur!"

Something in his voice startled me and my eyes flashed northward whither his long arm pointed.

Under great stress a man sometimes thinks of whimsical things. What I thought was "I've killed three pups of the North Pole and here's the whole d[illegible] Arctic Circle coming south to me about it!"

Rolling steadily down, like snowy surf mountains high, came a squall the like of which I had never seen. One glance was sufficient. The white mass seemed thick enough for good shooting and the way in which its devil's advance blotted out the landscape was absolutely terrifying. Under such a downfall a trail would not show for a minute.

"Come quick!" said Joe as he turned and the glare in his eyes was a solemn warning.

I have [illegible] in a somewhat [illegible] [illegible] [illegible]

a rasp of a twig across my cold nose startled and hurt me so that I noticed I was running into cover. The edge of the woods! Yes and there was Joe's track and Joe himself just ahead.

In ten minutes we were at the cabin. Fifteen minutes later we had got rid of snowy outer garb and had looked upon something red and oh! so welcome. Presently Joe raised his drawn face from his hands and said:

"Bad to kill dem white snowbird. But you good—run like bull moose—else los!"

I muttered *something*, I'd hate to say what, for my eyes were closing in utter weariness.

A WILD HORSE DRIVE IN THE AUSTRALIAN BUSH

By Col. John F. Hobbs

THE waiting stockmen had scarcely passed friendly greetings with the squad which had ridden up from Emu Creek, when a cloud of black dust pushed itself around the bend and across the road at the turn, and two big horses shot out of it into the straight.

"It's a bolt!" shouted some.

"No—it's a race. Give 'm the road! It's them two chestnuts settling the match made up at Carmichael's," cried others.

The thump, thump, thump on the level, black prairie indicated the earnestness of the contest, and along came the two horses like a physical cyclone. With a snort and whish they shot past the waiting crowd, who mingled a yell with the dust as they passed.

The cloud had barely cleared behind them when the chestnuts cantered back and were joined by the incongruous jumble of hackneys, cobs and piebalds of all sorts, the mounts of the stockmen gathered for the brumby drive, at which half the country side was expected.

"What is the exact nature of a brumby drive?" asked Burnaby, a newcomer, of one of the older men.

"It's a sort o' rough horse frolic for us bush coves," the bushman explained politely, and seeing that the stranger did not understand, he continued: "McIntyre's leased the Range from the gove'nment. It's wild crown lands on th' maps, an' them flats an' scrubs is full o' brumbys, which 're a no-bred sort o' wild horses that no one don't know how they got here. That ain't no matter; they're here, an' the beggars got to be shifted, or the whole range's no good f'r stock breedin'. So Mac's goin' t'round 'em up an' drive 'em out. That's th' meanin' o' this gatherin' o' hands at Carmichael's. D'ye understand?"

"Are there many to drive out?"

"Many! there're more 'an a thousand over there in th' scrub, an' Mac has th' gov'ment contrac' t' scrub up th' lot. We coves'll make a clean job 'f the Goomburra, Joudaryan, an' Yandilla boundary riders come in. An' 'f them Gumbungee blokes hear o' this drive they'll muster down there too with their houn's, an' guns—well, there'll be racin', an' shootin', enough t' satisfy even 'Old Tipperary.' You keep y'r eyes op'n an' y'r mouth shut 'n you'll have no rows to settle afterwards."

An hour later the company turned the southern nose of the mountain and cantered up to the general meeting-place. From this point they circled east and west, bending north, because brumbys come down out of the hills to graze toward the creek in the early morning, and by one they return to the shades of the dense woods where they remain during the parching hours of the afternoon sun.

"Now," said McCurdy, whom McIntyre had engaged to command, "let's see. There are nearly one hundred of us, an' we should yard a good mob out'r that lot if they're down in force. It's been pretty dry, and they've got t' make th' creek and back. It's now after ten o'clock. It's a good two miles 'round t' Womba paddock, an' three

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more t' th' range. It'll take some careful ridin', mates, an' ticklish work, t' keep th' mob from breakin' through. Hol' 'em steady, an' hol' 'em t'gether. If they breaks, an' the leaders ain't turned, 'Old Nick' 'imself couldn't stay th' break they'll make for them hills, an' th' jig'll be up f'r a couple o' weeks, 'ntil th' scare's out'r them."

Jollity had ceased; a dead, earnest calm settled in its place. The noisy, hilarious crowd of an hour before had settled down into a sober, silent phalanx on business intent. The rollicking bushman had quieted into the stolid, fearless frontiersman, ready to throw life and skill into a desperate encounter with a treacherous foe, for the Australian wild horse, when pressed, attacks like a demon—rushes, rears, kicks, bites and fights doggedly vicious when retreat is cut off.

In such a hazardous and rapid conflict his pursuers who do not come down or suffer in the encounter must be daring and accustomed horsemen.

As the line of mounted men strung around the base of the mountain to the northeastern extremity, the trained bush eye could discern a big forest rising on the horizon miles away towards the treeless creek.

"There they are, watering, as I said," observed McCurdy, pointing to the north. Taking his nickel-plated watch from its leather pocket at his side on his waiststrap and looking at it, he continued, "and it's 10:15. Them coves'll be in coo-ee in another quarter. Bail up a minute, mates," the leader called to the line behind him.

"I don't see anything," said the stranger, withdrawing his tired eyes from the shimmering main, "except the lake out there and the forest beyond it."

A burst of laughter about him greeted this observation.

The merriment was understood by the visitor when a drover said:

"You ain't used t' dry plains much, mate. Old-timers don't hunt water no more when they sees a glass face like that, If they're pretty dry themsel's, an's been bushed in 'r dry spell, in 'r dry country, an' strike a glace lawn like that out there, why they just looks 'roun' f'r a shady place t' die in, an' leave th'r white bones f'r their epitaph."

"That white glimmer is not water; it is e hot air, and the evaporation from the earth. Look back. It is everywhere the same. See?"

"I can see the shadows of the trees reflected in the water beneath them," replied the visitor, with the persistence of a jackaroo and a growing suspicion that he was being made a butt of by the mischievous stockmen.

"You see reflections, it is true, but those are not trees, and that is not water," said McIntyre. "That deception which you are looking at has fooled many a new settler, and led him on from hope to hope into drier plains with no chance of getting water and finally to die of thirst. Old hands like us now know better. What you see before you is what the books would call a land mirage, or optical delusion, and is peculiarly characteristic of Australia."

Tom McCurdy drew the crowd back into its business mood by yelling:

"Coo-ee-ey!"

"Hear 'm, Tom?" asked McIntyre.

"Yes; at the corner."

The call sounded again and the echo came louder along the bluff.

"Move down a stretch, an's soon's Fisher's line roun's th' point 'n line off, dash at the beggars out there with a yell; get 'em frightened, get 'em on th' go, an' keep 'em at it 'ntil they call a halt on us. Then, look out!"

Carl Fisher's squad cantered over the wooded mound, down the rubble slope at the gap and strung out along the palisade of the abrupt face of the mountain, and then swung out into the prairie facing the miraged brumbys at a lively canter.

McCurdy's men loped leisurely out to line off from Fisher's end. The long cavalcade of horsemen then galloped abreast over the undulating plain as quietly as the dull thump of the speeding animals would permit them to.

When the nearer beat of the galloping horses startled the grazing brumbys, and they threw up their heads, McCurdy knew the time had come.

"Giv'm a dash, a whoop, an' a roun'-up for'd," he commanded, giving his own steed more rein. With a terrific yell the drivers dashed in upon the affrighted wild animals; the dogs rounding the ends, and turning the scattering ones to the center.

The startled horses bunched, huddled in undecided confusion, made a momentary stand, and then a spasmodic lunge against

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the whooping yellers, who beat against the circling maze of agitated wild animals to break the corral, and head out a leader for a drive forward.

Burnaby never saw a livelier or a noisier piece of work than this reckless charge and manipulation of an untamed mob of bush horses by these daring frontiersmen. Men rode around and fought the snapping, pawing brutes, fencing hoofs and gnashing teeth with their stock butts as though it were athletic play. Finally, Tom McCurdy and big Bill Lindsay wedged into the mass, and kneaded through to the opposite side, when a furious stallion gave them chase.

This made an opening. With another shoving whoop, and the flurry of the big stallion's chase, and the dogs nagging at their heels, the disconcerted bunch headed out after Tom and the pursuing steed. The riders in the rear kept up a fearful din of yells, which, with charges and clubbing, soon stampeded the lot toward the creek.

It was now a pell-mell chase—fleet, unhampered steeds of nature, against the hardened weight-bearing horses of industry.

Carl Fisher rode at the head of the right wing, Tom McCurdy and Bill Lindsay in the lead, while McIntyre guided the left, riding wide, in a kind of a bow, so that the extreme ends would easily cover the flanks of the pursued mob. The drive was held well in hand, until the creek was reached. Here they balked and made trouble. McCurdy took one ford while Lindsay took the other. The wild horses divided also.

As McCurdy leaped down the steep embankment, the stallion tore a patch of hair from his half-breed's tail, and slued around up the incline, turned at bay with several others, and gave battle against the high banks, while the great bulk of the mob pushed and crowded themselves into the ravines of the beaten trail and crossed.

"Come on, lads," McCurdy called back across the stream, "there's no time t' divide or stop. Keep th' beggars 'r movin'."

Small bunches were abandoned here and there as they broke through, and pursuit forced after the main body.

By good generalship, hard riding, and with the aid of dogs the galloping brumbys were rushed up the laps of the muster yard, before they halted in their eight-mile race across the prairie into the friendly forest which they felt sure would shelter them.

So long as this delusion lasted it lent speed to their heels, but when it was dispelled the leaders, feeling the strong panels of the narrowing wings of the muster yard, showed disposition to jib and contest the ground. The forward ones being blocked by the increasing jam, the rear ones were left to battle. The stockmen pressed forward and precipitated the fray by attacking the stubborn ones, which were rapidly worked into a mood for any sort of encounter.

In less than ten minutes from the first halt and onslaught, a terrific battle was being fought in which brumby assaulted and fought horse and rider. Yells and screaming beasts mingled in the fierce fray.

The prairie-bush steeds bit, kicked, stood upon their hind legs and with their front feet pawed with a determination and intelligence which seemed human. These were critical times which imperiled the lives of the attacking party, but after an hour of this mixed combat, the bulk of the fractious quadrupeds were crowded into the stockpen and safely yarded.

"Three hundred and forty-two," announced Tom McCurdy as he stood on his saddle and counted the herd.

Then the company took stock of accidents and bruises. Elsas Sawyer had a fractured thigh; three horses were injured about the neck and shoulder, and one dog —a worthless cur—trampled beyond recovery. Minor bruises and sprained limbs made up the remainder of the casualties, save for a piece which a fighting horse had bitten from the muscles of Sim Wilson's shoulder.

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A COUNTRY HOME OF THE OLD REGIME

By Leonidas Hubbard, Jun.

AMERICAN country life is, for the greater part, a new-born institution. This fact is one of its chief defects. It lacks the peculiar charm which comes to a home, as to a wine, with age. The most beautiful of the new country homes fail, some way, to satisfy one who has felt the mystery that clings about a real old country residence—a residence in which cluster tales of early hunts and loves and wars. In New York there were built country places in the old, old days, but fate ordained that a city should spread to embrace a whole island and parts of adjoining islands. As a result the quaint old places on Love Lane and Boston Road, where a century ago the élite of Manhattan gathered to feast and dance; where presidents and senators and diplomats of the early day lent the honor of their presence, have disappeared. Nineteenth century enterprise cared not for romance. Room must be found for stores and apartment houses, so northward on Manhattan Island moved the tide of commerce, the old ballrooms became storehouses, and where ivy had once climbed arose mercenary-looking signs, which advertised moving companies and patent medicines. Love Lane was lost, and with it a bit of quaint old country.

But one American city there is which does possess an ancient country life in the regions just beyond its gates. Philadelphia is not built upon an elongated island, but on the broad, free mainland. When its expansion from an humble town to a goodly city began there was no crowding out of the old places, and so, to-day, we find remnants of the old-time Quaker life—a quiet, kindly life of rustic simplicity. Most delightful are the associations that cluster about this ancient life. Shadowy old Quakers are at our side as we walk from place to place, and shadowy old customs and conditions are eloquently described by a hundred features. Why is it that houses built two centuries ago are still well beyond the city's limits? How did the settlers dare venture so far from the town and [illegible] the only source of safety? As the [illegible]tion arises, the shade of a calm-faced Friend comes out of the dim past and informs us with many a "thee" and "thou" that the settlers of the colony of Brotherly Love needed not to huddle together in narrow little walled-in communities for protection against the savage neighbors. Indian wars did not come to Philadelphia, and the early settlers pushed boldly, fearlessly, prayerfully into the wilds to make their homes, to clear their farms, and rear their children. We wonder at the size of these old farms, but again our shadowy guide tells us of large grants given by the crown to settlers, and of the generous distribution among his friends of Penn's own lands, which left him well nigh in poverty. And growing eloquent in reminiscence, our shadowy guides tell of that early day when land could be had for the asking; when a colonist was not thought especially rich or fortunate who held a thousand acres—a thousand acres of virgin forest on Pennsylvania's rolling, fertile face. They tell of later days when the forest had been cut away and the land made into farms; when strong stone houses and large, comfortable barns arose; when brave men asked God's blessing before they made love to fair women, and thanked Him for safety at the end of a day's run after the hounds. There are tales of later days when these men, their sons, or their son's sons, became leaders in church or politics, statecraft or commerce.

These are the themes on which the spirits that haunt all ancient houses are ever eloquent, when one wanders over the fields of these Quaker estates, or rests beneath the elms that shelter some old stone veranda. Then, too, there come whisperings of a wondrous and beautiful contentment which has characterized the generations that have dwelt here through the centuries. Here are farms and homes that have come down from father to son since the first grant in colonial days. What has kept them here? Why have not these sons scattered to the ends of the earth as other sons have done elsewhere? Is it not because this simple Quaker country life charms and holds to itself those who come within its reach? At any rate, through all the vicissitudes of

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two long centuries, through war and plague, nation building and nation sustaining, here the old families have remained, rising to meet the demands upon each generation whether it be danger or toil or perplexity. We may laugh at ancestral pride if we wish, for laughter is as cheap as talk, but when we find a line of ancient thoroughbreds, the breeding tells. Not only does good blood promise corresponding character, but the fact of worthy ancestors is a wondrous moral influence. One feels under obligations, as it were, to live up to his progenitors.

Taking that division of the Pennsylvania Road which ascends the beautiful valley of the Schuylkill, and dismounting at the little town of Bala, one finds himself in the midst of some of the Quaker colony's most ancient associations. In the depot hangs a card, a simple church announcement, which breathes out whole volumes of local atmosphere. It reads:

"FRIENDS MEETING HOUSE.
[William Penn worshipped here regularly over two hundred years ago.]"

Beside it hangs a colored picture of an ancient village, quaint and beautiful in its place among the Welsh hills. This is a view of Bala, Wales. How much is told in this card and picture! Here two hundred years ago was a well-established settlement of Friends, with farms cleared and churches built among the Pennsylvania forests. Their village was named Bala from the dear old Cymric hamlet of their native land. Here, these two displays hint to us, we shall be in the midst of the scenes and traditions of that romantic age.

We pass down the road, and on our left the hill we have been climbing falls away as though some giant with a huge knife had hollowed out its top to make a reservoir. Down in this hollow, with the ridge of the hill rising all about, we catch a grouping of trees—giants of a dozen species—and in their midst a house, low, and old, and quaint, but full of character and charm.

This is the old Roberts homestead. Founded by John Roberts, in 1684, it has passed down from father to son through seven generations, until to-day it belongs to the heirs of the late George B. Roberts. There are two and a half stories in the house, which is built of stone. On the western end is the portion erected by the original John Roberts, built of many shaped and varicolored cobblestones. Farther east is a larger and more recent addition, made of gray stone, carefully cut and fitted. A low porch runs about the lower floor, on the southeastern corner of which opens the conservatory, with windows so great that the inhabitants might almost be accused of living in a glass house. In front are giant white-limbed sycamores and oaks that once formed a part of Penn's virgin forest. Among these are maples of a size to gladden the heart of the sugar maker, Lombardy poplars that rise like flagstaffs above the neighboring crowns of pines and spruce and elms. Here and there among these native trees are a dozen that have been imported within the last half century.

There is a wonderful potency in trees. What gives character like a few old veterans whose age dates back beyond colonial days? Who can sit on a veranda and look out upon an oak three feet from bark to bark without feeling the glamor of ancient days and ancient deeds? Or who can wander among elms and sycamores that once made part of the primeval forest without catching the mysterious spell and spirit of the forest age? Truly nothing makes so fine an ornament for an ancient house as ancient trees. Yonder oak stood where it now stands in the year 1684, when John Roberts, fresh from Wales, came here to clear and make a home upon his thousand acres. A pious Quaker was John Roberts, who knew William Penn, and who was honored by the great city-builder. The records of a certain Welsh town show that "one John Roberts, in 1683, appeared and made oath that no marriage or family or contract to marry stood in the way of his migration to the new world," whereupon, with one servant, he came to join his brethren in a land of religious liberty. The devout and thoughtful character of the man stands forth in the record which he left of those early days. "So I leave this account," he wrote, "for our offspring and others that desire to know from whence we came and whom we descended from, and when we came to settle unto this place where we now abide, being then a wilderness, but now, by God's blessing upon our endeavors, is become a fruitful field."

Why did not more of our forefathers leave such records: old records and old trees, with a cobblestone house about which cluster old, old family traditions and from whose walls look down the portraits of pre-

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revolutionary ancestors? There is an influence in such settled things that we can not feel whose progenitors, generation after generation, followed westward after the deer and buffalo, or who left farms to cut the forests and forsook the forests to open mines; the grandfather forgotten before the great grandson is born. Who can tell the potency of such records and such associations? Or who can tell how much these have been responsible for the growth of seven generations into men who have led their fellows in commerce and finance and politics? John Roberts stands out before us as a vivid personality. He was a careful, conservative, thoughtful old pioneer, who built not for a day but for an age. We see him surveying his grant of land, perhaps guided by a friendly aborigine. We see him select this spot for his dwelling, arguing to himself that the hollow in the hill top would be free from rude winter winds. We see him at his building, making not the too common log house of the settler, which perished, as it were, in a day, but one of indestructible cobblestones. We see him planning the great fireplace and sitting by it afterwards at evening, safe alike from the storms and savages of the wild new world. Little by little, through the generations, the place has grown. New trees have been added to the forest in the dooryard; gardens have been made and greenhouses built. On the rim of the hill a wind mill fills a reservoir from which the gardens and lawn are watered. Barns and stables and sheds have grown up along the northern and western sides. An alleyway separates these from the yard, an alley on whose sides are built the quarters of servants and farm hands, dairyman and farmer. Cobblestone, cut stone and stuccoed work are the chief materials. Walking down the alley one almost imagines himself in the street of some oriental village. But this gives way to the certainty that he is in an old-time villa where the servants live apart from the mansion, and have a community and a life of their own. The effect of durable buildings of stone and stucco adds an air of cleanliness as well as one of permanence and durability, quite in keeping with the character of the place. Between the servants' houses, too, run fences, likewise of cobblestone, similar walls separate the barns and sheds which year after year have grown to meet the needs of present day country life. There is no attempt at prize winning in stock or other farm produce. The stables are full of good horses, carriage horses of sturdy stuff, and saddle horses, too, but they are not designed for fast work on the track, or to take prizes in great shows. In the barn, too, are some two score cattle of different breeds. The farm is cut into gardens and fields, with special attention to the gardens. But the farming is not fancy, it is merely up-to-date agriculture, designed to make the land pay for itself in the produce it furnishes for the family use.

Here is an estate which began as the sole wealth of its first owner and which through several generations yielded its produce to professional farmers, who owned and worked it. But the later members of the Roberts family went to business in the city, and with the late owner, whose railroad presidency was his real work, it became largely a home, and the farming changed from an attempt to make wealth into a matter of pleasant pastime, good fruits, good vegetables and good milk. In this it differs from many of the country places round about, which have grown up in a year or two, as the plaything, the recreation of some millionaire. It differs from very many, too, in being a home. Numerous fine country places are but resorts whither their owners go now and then for a vacation. But this is a home and from here its residents go to business in the city and return for dinner at night. In this respect it is an ideal combination of country life with city convenience; of ancient tradition with modern comfort.

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DO ANIMALS THINK?

By Lynn Tew Sprague

HE is a bold man who to-day ventures to deny the progressive development of animal structure, but that the mind of man has been or possibly could be the flowering of the mental faculty even of the highest type of animals are propositions denied by most theologians and even by one or two eminent scientists. Yet that is the thesis of this brief paper, and it is the position maintained by the almost unanimous vote of the highest modern psychological authorities. While it is my purpose to make my necessarily very restricted survey of a most momentous subject in the most popular language, it is also my aim to make it as nearly as may be from a purely scientific standpoint.

Now everyone knows what a wealth of interesting, remarkable and touching stories of the intelligence of animals there is. Nothing would be easier than to collect some of the most striking of these anecdotes and construct an article full of romantic entertainment. But such stories are for the most part of little or no value. Even when related in all sincerity the narratives are distorted by biased judgments, a lack of scientific discernment, false deductions and an utter want of practised discrimination. Not long ago Theodore Roosevelt called attention in these columns to the great need of "trained observation" in the hunting field. In scientific research it is, of course, a *sine qua non* of all procedure. If, then, I draw my facts chiefly from known scientific sources, it is because the aim of scientific writers is not to weave fascinating stories, but to ascertain the truth.

One other matter it is important to consider prefatorily—the distinction between instinct and reason. Formerly it was usual to refer all intelligent actions on the part of animals to instinct. Man alone was considered a rational being; the brutes were mere machines incapable of thought. This is practically the position of those who still cling to the theory of a special creation. Now while the term "instinct" is still used by evolutionists, its signification is much changed. Any inquiry into the subject will, of course, lead us far afield, but we may briefly say that instinct is no longer looked upon as a mere gift, *ab initio* from the Creator, but as intelligent propensity which, like anatomical structure, has been slowly evolved through unthinkable ages by classes and races of creatures. It is the inherited result of ancestral experience, or in the exact learned language of Romanes it comprises "all the faculties of the mind which are concerned in conscious and adaptive action, antecedent to individual experience, without necessary knowledge of the relation between means employed and ends attained, but similarly performed under similar and frequently recurring circumstances by all individuals of the same species." Men no less than animals, then, have instincts, but animals, by reason of being lower in mental development, act much more largely under instinctive impulse. Moreover the faculty blends and merges into that of reason, so that it is impossible to tell, always, whether an action is purely instinctive or partly rational. That the instincts of animals are plastic and are changed and molded by individual experience has been fully proven, and this, of course, is the strongest evidence of mental evolution. Setting aside now the wonderfully interesting instances of purely instinctive action shown by nearly all classes of animals from bees to elephants, I will proceed to the enumeration of some well-authenticated examples of my thesis, that animals do reason.

Beginning with the smaller creatures, I assume that everybody knows the wonderful faculties displayed by many insects, and especially by bees and ants. It is often difficult, as I have said, to tell what part instinct plays and what part reason, in many of their actions. The strange tribal and caste arrangement of bees is fairly referable to instinct; the more wonderful proceedings of ants in many cases are also to be largely ascribed to inherited habit. But when it is remembered that different species of both these orders adjust themselves to various environments with dex-

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trous nicety, it follows that powers of individual adjustment are brought into play. Ants not only construct complicated and intricate dwellings, but they adopt pets, make slaves, keep aphides much as human beings keep milch cows. They organize armies and conduct campaigns which in the nature of things must be altogether variable. Sir John Lubbock's tests and experiments with this class of insects are a revelation. Darwin declared "the brain of the ant is one of the most marvelous atoms of matter in the world, perhaps more so than the brain of man." Some species of ants gather harvests, build bridges and viaducts and, we are assured, even bury their dead with solemn pomp. In a paper read before the English Linnean Society in 1861, the writer describes a funeral as conducted by Australian ants: "First walked two ants bearing the body, then two without a burden; then two others with another dead ant, and so on. * * * The procession moved slowly onward, followed by an irregular body of about two hundred ants." Sometimes the pair walking unburdened would relieve those carrying the corpse. When the cemetery was reached, a "number of holes were dug, into each of which a dead ant was laid, where they now labored on until they filled up the ants' graves." But subsequently when the same colony had occasion to kill a half dozen malefactors "a single grave was quickly dug and they were all dropped into it." Does this seem beyond belief? Well, an English clergyman, Rev. W. F. White, writing in *The Leisure Hour* (1880) goes still farther and tells how at a funeral of baby ants which he (unprofessionally) attended "one ant was visibly affected and tried to exhume the bodies, but the united exertions of the yellow sextons were more than sufficient to neutralize the efforts of the disconsolate mourner." If this is mere brute instinct, what shall we say of man's higher emotions? I may add that both of these anecdotes receive the indorsement of quotation, from so eminent an authority as Romanes.

What the average age of ants may be no one can say, but Sir John Lubbock, speaking of a queen of one of his colonies, declared that, though he did not know how old she was when captured, she had been in his possession over fourteen years, and though "a little stiff in the joints, as far as I can judge she is in her usual health." It certainly seems a remarkable age for so tiny a creature. When it is remembered what swarms of ants occupy a single nest, it is singular that all of one colony should be able to know and recognize each other, even in the confusion of battle with other ant communities. Yet such is the case. Moreover, they seem never to quarrel among themselves. Lubbock took several ants from two nests and having marked them with different colors so he should know to which nest each ant belonged "made them very drunk so as to be insensible." He then put them all among the ants of one of the nests. "The sober ants were rather puzzled, but after examining the intoxicated individuals, they picked up the strangers and threw them into the ditch, while they carried their own friends into the nest, where, no doubt, they slept off the effect of the spirits." Very human, is it not? A simple example of the observation and reasoning power of ants is related by Belt, who tells of a colony which had to pass over a railway to get from its nest to the trees. After the cars had crushed a large number of the ants, the rest tunneled under both rails, and when these tunnels were stopped, new ones were dug. They understood the cause of the catastrophe, and under no circumstances would ever cross over the rails. Experimenting with an insect so low in the scale as a cockroach, I have found them possessed of a quick adaptive sense and an exact memory. I have no space to detail these experiments, but may say that a specimen after many trials learned how to escape from a labyrinthical prison which I constructed, and having once found its way through a perplexing maze, did not forget it, and though recaptured and imprisoned time after time, it always made rapid exit without fault or mistake. A very high example of reasoning power, of calculation, and mechanical skill even, is related by Langley, the American astronomer. It was exhibited by a minute spider and the scientist declares "the complexity of the scheme" showed intelligence "in a degree we cannot all boast ourselves."

Skipping at once, for want of space, over volumes of anecdotes relating to smaller animals, and with real regret those relating to birds, I may outline a few incidents of particular interest to sportsmen, because

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they relate to dogs. If I am accused of taking exceptional examples of insect intelligence, I shall, of course, plead guilty—my only care is that the instances be authentic. Insects are very stupid and irrational for the most part in many ways. Even a bee may be put in an uncovered fruit jar and if the jar be laid sidewise upon a window sill and the bottom turned toward the light, the bee seldom shows sense enough to get out, but buzzes against the bottom for hours. On the other hand, in many instances it exhibits very high faculties. So no dog may be as clever an engineer as Mr. Langley's spider, but as a rule there is a better balance of mind the higher one goes in the mental scale. First among animals, in the rôle of companion and friend to man, stands the dog. If he is below the anthropoid apes in mentality, he is distinctly above them in decorum. I am concerned here, not with touching instances of loyalty, but with mental processes alone. That dogs understand to some extent our language, no one will deny. They know their names and can be taught to perform services and do tricks by verbal commands. A lady friend of mine has only to say to her well-trained pug, and that without gesture or raising her voice, in a room where general conversation is being carried on, "Come, Skip, it's time you went to bed; go right along now," and though the dog lies asleep before an inviting grate fire, he knows so well the meaning of the words, and that he is addressed, that, like a model child, he will march upstairs to his bed in the back hall and crawl under his blanket to resume his slumber. This dog will lift his head and wag his tail when his bright actions are described, but will show shame and slink out of the room when his reprehensible deeds are spoken of. Another dog in the same family, an English pointer, could be sent to any room designated, knew the inmates of the house, and pieces of furniture when named and could be sent after various articles. This dog was very fond of strawberries and would always pick a package containing them from among the grocer's bundles and carry it with beseeching air to the maid. The reason why so many dogs show so little susceptibility to instruction is because we do not scientifically study a method of communicating ideas to them—we go at them as we would a recalcitrant child. Lubbock taught his poodle "Van" to read simple words. Cards were procured upon which such words as "water," "bone," "out," "tea," "ball," and a number of others, were printed. The cards were never kept in the same order; they were all handled equally often by the master so that scent should not guide. And yet Van soon learned to use the cards as requests and soon mastered the idea each word represented. For instance, "If he was asked whether he would like to go out for a walk, he would joyfully fish up the 'out' card, choosing it from among several others, and bring it to me, or run with it in evident triumph to the door." With simple arithmetic, however, Van made little or no progress, but that may have been, as it often is with us, an individual failing.

I may relate here a piece of strategy which I once saw a Newfoundland plan and execute: In company with a greyhound he was playing at the street end of an alley. At the farther end of the alley was a shop, to the owner of which the greyhound belonged. A bone was tossed to the dogs and the greyhound got it. He ran away down the street at right angles with the alley, the Newfoundland in full chase. But the latter dog realized after a very few bounds that the pursuit was hopeless. He stopped stock still until the hound had rounded the corner, then evidently thinking it probable that his fleet friend would make for home, the Newfoundland turned and ran at full speed up the alley. He met the surprised hound at the farther end, as the latter was turning the corner, and pouncing upon him, took the bone away. Romanes tells of two dogs which, being frequently interfered with, at length swam across a river that they might fight out a quarrel undisturbed. He declares that his investigations prove that dogs communicate to each other simple ideas. Darwin says they have a sense of humor apart from the sense of mischief, and Romanes tells of a terrier he experimented with which was fond of catching flies upon window panes, and was very much chagrined if laughed at when unsuccessful. He says, "On one occasion in order to see what he would do, I purposely laughed immoderately every time he failed. It so happened that he did so several times in succession—partly, I believe, in conse-

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quence of my laughing—and eventually he became so distressed that he positively *pretended* to catch the fly, going through all the appropriate actions with his lips and tongue and rubbing the ground with his neck as if to kill the victim; he then looked up at me with a triumphant air of success. So well was the whole process simulated that I should have been deceived had I not seen the fly still upon the window. Accordingly I drew his attention to the fact, as well as to the absence of anything upon the floor, and when he saw that his hypocrisy had been detected, he slunk away under some furniture, evidently much ashamed of himself." Dr. Beattie tells of a dog which, after trying in vain to save the life of his master who had broken through the ice of a river, ran for help and made his purpose known by significant gestures, so that the man was saved. There are numerous instances of this sort. Sheep-killing dogs never kill the sheep on the farms of their masters, but travel long distances away and are always careful to wash themselves in some brook and otherwise hide all traces of their crimes. In short, the sagacity and reasoning faculty of dogs are so abundantly exemplified that more anecdotes are to no purpose.

Some few words I must allow myself regarding the mental traits of those animals most nearly allied to man—the anthropoid apes. With such general misconception of the doctrine of evolution and the hypothesis of natural selection, it is not surprising that there should exist a popular impression that science absolutely declares our ancestors were monkeys. But it does nothing of the kind. As Professor Hartmann of Berlin, a great authority on anthropoid apes, says, "The most fanatical advocates of the doctrine of descent are becoming evermore convinced that man cannot be the issue of any extant form of anthropoids." And again he says, "That purely hypothetical being, the common ancestor of man and ape, is still to be found." Science does show through morphology that in the genealogical mammal tree the branch of certain of the apes joins that of *Homo sapiens*, at a much nearer date than does that of any other. Even the horse is presumed to have descended from a common primate. Huxley, perhaps the greatest English biologists, declares that there less difference anatomically between man and the gorilla than exists between different species of apes, and it is of comparisons mentally that Fisk has written a much-quoted passage wherein he shows the wide gulf between the modern European and the aborigines of Australia. He tells us that, on the one hand, the former can make elaborate calculations that foretell the exact position of a planet at any minute one hundred years hence, while "on the other hand, the Australian is able to count up to only five or six, and cannot tell the number of fingers on his two hands, since so large a number as ten excites in him only an indefinite impression of plurality." Yet Romanes taught an ape in the London "zoo" to count up to four and to bring him the number of straws named within that slight range. Hartmann tells us that "it should not be forgotten that the modes of living in most degraded races differ little from those of anthropoids." Apes have been taught to drink from cups, to sit at table and eat as we do, to wear clothes, sleep in beds and use tools. It is asserted that one on shipboard has been known to throw a rope to a companion which had fallen overboard. A volume might be filled with their ingeniously mischievous tricks. Sir Andrew Smith, a zoologist, whose scrupulous accuracy Darwin endorses, tells this story: "At the Cape of Good Hope an officer had often plagued a certain baboon and the animal, seeing him approaching one Sunday for dress parade, poured water into a hole and hastily made some thick mud which he skilfully dashed over the officer as he passed by, to the amusement of many bystanders. For long afterward, the baboon rejoiced and triumphed whenever he saw his victim."

Very few have ever had the opportunity of studying the gorilla in captivity, and few white men have ever seen one in its native wilds. It has the reputation of being ferocious and untamable; but writing of a young one after it had been in captivity only a few weeks, Falkenstein says: "He was allowed to run about at liberty without fear that he would make any attempt to escape. He was never chained nor confined to a cage, and was watched only in the way that little children are watched when they are at play. * * * He expressed the ideas which occurred to him by different sounds, one of which was the characteristic tone of importunate petition, while others expressed

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fright or horror, and in rare instances a sullen and defiant growl might be heard. * * * Moreover, he often expressed his feelings after a quite human fashion by clapping his hands together, an action which no one had taught him; and he executed such wild dances, sometimes overbalancing himself, reeling to and fro, and whirling around, that we were often disposed to think that he must be drunk. * * * He took up every cup or glass with instinctive care, clasped the vessel with both hands and set it down again so softly and carefully that I cannot remember his breaking a single article of our household goods. Yet we never taught the creature the use of our vessels and other manufactured articles, since we wished to bring him to Europe as far as possible in a state of nature. His behavior at meal times was quiet and mannerly; he only took as much as he could hold with his thumb, fore and middle finger, and looked on with indifference when any of the different forms of food heaped up before him were taken away. * * * His cleanliness was remarkable, and if by accident he touched a spider's web or rubbish of any kind, he sought to brush it off with absurd horror, or held out his hands to have it done for him. There was no offensive smell about him. * * * When he was anxious to obtain anything, no child could have expressed its wishes in a more urgent and caressing manner. If in spite of this he could not obtain what he wanted, he had recourse to cunning, and looked anxiously about to see if he was watched. In these cases when he pursued a fixed idea it was impossible not to recognize a deliberate plan and careful calculation."

And here I turn from the enumeration of anecdotes to ask what unprejudiced mind can deny, with these and a thousand other facts before him, that animals are capable of that process of mental conceptions and deductions which in common parlance is termed thought, or that, like us, they cogitate and feel, and in the same manner, if in less measure. In regard to the emotions, Romanes, whose studies in this field have been most profound and comprehensive, has found unquestionable evidence that they possess every one of the emotional faculties of man, excepting those only which refer to morals. But others have even found traces of this, and Herbert Spencer, the great philosopher of evolution, while boldly denying religious sensibilities to all tribes of men, traces the genesis of religion itself.

Indeed, evolutional psychologists now assure us that mind was born of feeling—in Huxley's phraseology there was an "evolution of intellect from sense." Where now shall theologians draw the line below which soul is not?

But however all this may be, we may fairly conclude with Romanes that "there has been no interruption of the developmental process in the course of psychological history; but that the mind of man, like the mind of animals—and indeed like everything else in the domain of living nature—has been evolved. For these considerations show not only that on analogical grounds any such interruption may be held as in itself improbable, but also that there is nothing in the constitution of the human mind incompatible with the supposition of its having been slowly evolved, seeing that not only in the case of every individual life, but also during the whole history of our species, the human mind actually *does* undergo and *has* undergone the process in question."

Nor is there any loss to ethics here, as some have feared. For at the very most, the psychological distance between us and those animals, which serve and obey and fear us is not great as space and time are measured by the student of cosmology, and if it teaches us anything, the new science teaches us a broader charity, a loftier justice and a deeper friendship toward our speechless kindred.

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ATHLETICS FOR THE PHYSICAL BETTERMENT OF THE ENLISTED MEN IN THE ARMY

By Edward L. King, 11th Cavalry, U. S. A.

AT the time of the outbreak of the late unpleasantness with Spain athletics in the army was a subject which interested the whole military service. While the situation of certain posts gave them added impetus to this part of the military training, for it very certainly is a very important part of our military training, nevertheless an equal appreciation of the value of athletics to these professional soldiers existed even in the remote posts on the frontier. The education and development of the enlisted man in this respect was made the subject of orders from the different department headquarters and, if I am not mistaken, from Headquarters of the Army, so that each post was required to give a certain amount of time and attention to this line of work.

It must not be supposed that the intention was to make the men athletes by order, or to make "world beaters" of the men in an athletic sense. Far from it. The desire and aim was to give to every man a certain amount of instinction in the use of his different muscles so that all round efficiency of the men and of the command would be the result rather than development of a few stars. Naturally if any man showed special aptitude in a particular branch of sport he was encouraged to perfect himself in that line both for his own good and by way of an incentive to the other men as showing what one of their number could do. But the man who could do well at about everything was encouraged as indicating a general development to be desired.

In former years the question of the development of athletics as a branch of military education was not considered of much importance. If a troop or company had a runner or jumper who could beat everybody else in the post, the organization was proud of him—but the systematic work of bettering the physical condition of all the men of the command by a regular amount of athletics is a product of later years.

Appreciating the general result obtained at the Military Academy at West Point in recent years by the increased attention given to athletics, it is very easy to trace this result as each class is graduated and goes out to take up its work throughout the service. Men who at West Point were not known at all in the athletic world of the Academy, but who by a systematic attention to athletics had developed themselves and thus appreciated its value—these men upon graduation go to their troop or company at once taking the men in hand and obtaining astonishing results in a short time. And it is very natural that it should be the younger officers who put the athletic spirit into the men. While a man at fifty years of age may be in splendid shape it is not to be supposed he would be as active as a youngster of twenty-two to twenty-seven. It has been my experience in this line of work that soldiers like to have as an instructor, an officer who can show them "how the exercise looks when properly performed" and while an officer of fifty in attempting an athletic feat might do pretty well "for the old man" yet the interest is held and enthusiasm increased by the instruction of the younger officer. The extent to which athletics may be carried is to a certain extent a question of funds. By this is not meant that athletics cannot be carried on without a large outlay of money but a little money judiciously expended will increase the interest of the men and thereby help in the good work. For instance nine men playing baseball will enjoy it, but if these men can have a certain distinctive uniform, no matter how simple, their interest and that of the others will be thereby increased.

To obtain the outfits necessary to carry on this development in athletics among enlisted men resort is had to the company fund. The fund is a certain amount of money greater or less, obtained in various ways, but mainly from the earnings of the post exchange or the canteen and divided amongst the organizations at the post. With this fund the baseball, the gymnasium and the football outfit are purchased

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either by the individual organizations or by the garrison as a whole and turned over to the men of the command for their amusement and instruction.

This purchase may vary from a baseball and bat, a football or set of boxing gloves to a more complete outfit depending upon many circumstances. As soon as the required articles arrive the whole organization begins a systematic course of instruction more or less perfect depending on the instructor and external circumstances. All of the men of the command are required to attend. As the work grows harder or more difficult of execution the older men are excused but required to continue with the simpler work. The old soldiers sometimes grumble at having their joints loosened up, but no one is more pleased at the discovery that he can equal or excel the younger men than this same old soldier. At certain intervals of time contests of various kinds, field days, etc., take place at the post. For these events prizes of more or less value are given to the winners and other methods adapted to encourage competition. Here again the idea is not to encourage specialties but to obtain a result for the general good.

By these means many good men who would perhaps never have been noticed, or at least not for a longer time, are brought to the front and become the leaders of their fellows—their proper place.

In this connection the writer has in mind a man who seemed rather dense for a long time. Suddenly he discovered he could do a thing better than the majority of the other men. He then braced up and found that he could excel at several other exercises and from being an apparently dense recruit he developed into a first-class man, simply because he found that he could do things just as well as the others. This is not to be necessarily leader of his fellows in other ways. But just as it is a fact that familiarity with one tool or weapon renders one more capable of learning the use of another so in the military service the man who can handle himself best in one situation, or in other words knows how to use his head to control his muscles, will be the man who will be the one to place dependence upon in a tight place. Not b
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But to return to the post contests. Aside from bringing certain men into prominence to the good of the service many other beneficial results are obtained. A generous rivalry is instituted between the different organizations which will extend not only to the work of the men in athletics but to the organization itself. A troop or company which can excel in athletics will endeavor to excel in its military duties. If it cannot excel in its athletics, it will determine to at least excel in something else so as not to be entirely left out. Thus, the rivalry works for the good of the service in both directions and thereby improves the soldier and the organization. Make a man proud of his organization and you increase his personal pride. Increase in personal pride of the right sort increases a man's worth to himself and to the community.

With this generous rivalry goes hand in hand a healthy camaraderie among the men and a greater respect for one another. Everyone admires more or less another man who is his physical superior and many a man with the necessary latent energy has been brought to the front by enforced athletics. Further, the officers and men are brought closer together without decreasing in the slightest degree the discipline of the command but rather increasing it. The men realize to a fuller extent that their officers take a personal interest in their welfare and a greater degree of contentment is thereby obtained. From the simple field days which are held at the remote frontier ports army athletics have enlarged in various ways such as the department competitions held at the Presidio of San Francisco and at Denver, Colorado, or the tournaments held at Madison Square Garden. All these exhibitions while participated in by, to a more or less extent, picked men, are really an illustration of what is done in the service throughout the army. The various feats and exercises there shown are performed, perhaps better perhaps worse, at practically every post in the country. True, the facilities at the different posts as well as the personal beliefs of the organization commanders enter very largely into the accomplishment of the more difficult of these exercises, but I have seen as fine examples of military
ymnastics, mounted or dismounted, on
prairies in Arizona as I have seen in
halls.

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In further carrying out the idea of all round efficiency as opposed to the work of a few specialties, endeavors have been made to obtain a form of athletics which will meet particularly the desires of the military service. The usual field athletics, such as running, jumping, etc., as well as baseball and football, are of course encouraged, but to these are added contests where the men carry their equipments, scale high walls and fences, taking their rifles and ammunition just as they will be required to do in action against an enemy, and similar exercises wherein the military needs and the athletic spirit are combined.

The gymnastic features of athletics are carried out with the paraphernalia of Indian clubs, dumb bells, etc., if at hand, but they are further carried out by applying the general principles of gymnastics to an exercise in which the saber, carbine or rifle is used. These exercises, aside from being very beneficial physically and familiarizing the men still more with the handling of the weapon, are extremely pleasing to witness when performed simultaneously by a number of men. In the mounted branch of the service still greater variety exists in the application of athletics or gymnastics to the education and development of the soldier. All the exercises of the dismounted men are open to the cavalryman and besides these he has a great variety of his own. To the mounted exercises the name "Monkey Drill" is often applied. By some few cavalry men this exercise is decried and spoken of as "too much on the circus order." Like so many other good things it may be carried to extremes. But here again the application of athletics to the military service comes in. So long as this form of athletics makes the man and horse one, so long as it increases the education of man or horse or both, and so long as it causes the man to "stay with" his horse under all circumstances no matter how or where he lands on him, just to that extent is this form of athletics beneficial.

Aside from these benefits to the service the benefit to the soldier from a purely physical standpoint is truly remarkable. Since the increase in the army authorized by Congress last spring the writer has been engaged in a minor capacity in the work of organizing one of the new cavalry regiments. During that time the instruction in military affairs has been varied with what might be termed applied athletics. By this is meant the application of athletics to the military service. To my mind the results are almost marvelous. The men come to us as soft, awkward recruits and now by this system of athletics they have become rugged, hardy, active and as tough as nails. Furthermore the faces of the men have brightened and in every way they look and are better men.

The regular army as it existed at the outbreak of the Spanish War is universally acknowledged to have been probably the best army of its size ever gotten together. The physical condition of the men was superb. To this may be ascribed to a great extent the universal application of athletics throughout the army for the physical betterment of the men. By the application of athletic features to the work in the company men and officers became better acquainted, the men realized that health went with physical development and that proper and regular habits contributed to this development. In a word it became a case of "a little play for Jack," and he was the better and more contented soldier thereby. And this contributed in no small degree to the making of the army a well-ordered and smooth-running fighting machine. Moreover the army in the spring of 1898 was an army of sharpshooters in the usual interpretation of the word. While it is not the intention to ascribe all good results to athletics it is nevertheless a fact that the men realized that the better physical condition they were in the steadier were their nerves and muscles and therefore the better they could shoot, and many men trained for the target season to a more or less extent. It may be asked in what way the enlisted men of the army are enabled to take part in athletics aside from that prescribed by order. Practically every company or troop has its football team, its baseball team, and its field and gymnasium athletics. The officers encourage these as much as possible and games and contests are held between the different organization teams. Then from the best men a post team will be chosen and contests held with similar teams from the neighboring posts. I have known post teams in the West to march 150 to 200 miles for the purpose of contesting with the local post team.

It has been my endeavor to show in a small way what has been done to better

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UNCLE SAM'S CAVALRYMAN

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the physical condition of the enlisted men of the army and how it has been done.

It is of course impossible to differentiate the good accomplished by drill and that accomplished by athletics; since in the service they in so many ways shade into one another. But certain it is that the two combined serve to make of the awkward recruit a much better man at the end of his enlistment than he was at the beginning. Though conditions the past three years have interfered with athletic instruction of the enlisted man, yet the germ is there and will develop whenever given an opportunity. And a person unacquainted with army work would be surprised to see how much "applied athletics" is made use of in the training of the men.

And now, in Cuba, in Porto Rico and in the distant Philippines, where the conditions will permit, field days are held, baseball games are played and in many other ways evidence is given that the Army fully believes in the good that can come to the man and to the service by a healthy indulgence in athletics.

"RACING IN PULLING BOATS IS A TIME-HONORED SPORT IN THE NAVY."

ATHLETICS AMONG ENLISTED MEN OF THE NAVY

By Martin E. Trench, "Kearsarge," U. S. N.

THE days when the Blue Jacket received all the exercise he needed for good physical development from regular daily work aloft have passed away. The excellence of sailing ships as schools for the training of seamen is well known, and a stronger, healthier and more vigorous body of men than the old-time

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sailors would be difficult to find. But the greater part of Jack's work is now done in men-of-war which carry no sail power, although a large proportion when entering the service get a few months' experience in square-rigged training ships before being transferred to the battleships and cruisers. Yet at present there are not a sufficient number of sailing ships to give all the young men who enlist this preliminary training; and it is probable that a small fleet of such vessels will be built for training purposes within the next few years.

While the days of sailing ships are about over, the American Blue Jacket has not lost the old-time characteristics. He is still the same strong, active, graceful man, but his development is perhaps brought about in other ways. He probably has more work to do than his predecessor of fifty years ago, but it is of a different kind, requiring more brain power and less muscular effort. The deficiency in physical activity is made up for by a good system of drills, or setting-up exercises as they are sometimes called, given twice daily for periods of fifteen minutes and by a practical interest in general athletics. The drill, done to the music of the ship's band, is a complete system of exercises bringing into action nearly all the muscles of the body, especially those belonging to the breathing apparatus; and with arms requires some muscular effort, as the service rifle, which weighs about nine pounds, is held in both hands and passed into the different positions. In addition to developing the muscles and breathing apparatus, these exercises correct defects in the bearing of the men, and give them a well-set-up and soldierly appearance. There are also infantry, boat and broadsword drills. In ships where there is sufficient deck room, the setting-up exercise is followed by a smart run in double time for about ten minutes. When the ship is moored at a navy yard, the double time may be given on the dock, where there is more room, bugle and drum being used to keep the men in step.

At the present time, most men enter the Navy young, and generally speaking the best developed are those who enlist as apprentices between fifteen and seventeen years of age, for they spend the first six or eight months in service at the training station, where they get some of the old-time work in square-rigged sailing ships, and are besides instructed in gymnasium work and use the spacious grounds for football and baseball.

Ships of the Navy are furnished with outfits of athletic material consisting of footballs, baseballs, bats, boxing gloves, Indian clubs, dumb bells, broadswords, foils, masks, etc., and these are used freely by the men, who are encouraged to do so and every possible opportunity given for practice.

The playing of football and baseball is very limited, as it is possible only when ships are in ports where suitable grounds can be obtained. The men understand and play these games very well, however, notwithstanding they get very little practice, and they usually acquit themselves creditably in games with more experienced shore teams. The Jacky, though very anxious to win, enjoys the sport for its own sake, and is not discouraged by defeat. He is always hopeful and expects to win next time. The teams are generally coached by young officers who have belonged to the Naval Academy teams, so that the expert knowledge gained there is distributed throughout the service with good results; and are usually equipped with the proper uniforms bought with money subscribed by the ship's company.

To have their ship at New York during the fall months is joy for the football men; for they can then find grounds, and teams to play with. At the Navy yard during this period, the men can be found practising diligently on the parade ground whenever they can be spared from their duties on board, and there is never any trouble getting the men out nor in finding candidates for the team. They, moreover, are always hard and in good physical condition, so that the first games of the season do not fatigue them as much as they do their friends ashore, and I know of no case where a Blue Jacket has been seriously injured at the game. Last fall, 1901, the football team of the battleship *Kearsarge* played at least one game every week with some local team around New York, and had dates with the teams of the *Alabama* and the *Massachusetts*.

Some of the Blue Jacket's first efforts at playing football were very ludicrous, but he has now passed the initiative stage and knows the game. A few years ago I accepted an invitation to coach a team of no previous experience. There was a fine physical specimen playing half-back and he did

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well until he got kicked on the shin in a scrimmage and then he got mad. He said he could lick the man that kicked him, and insisted on finding out who did it. It was explained that it was probably done unintentionally and that such hard knocks could not be avoided in a football game. He then left the field in disgust, saying he had enough of a sport in which a man could be taken such advantage of. He returned next day, however, and continued to play on the team. In the first regular game played by this team, one of the backs was running with the ball toward the opponent's goal when he was tackled, swung around a few times and then let go, facing in the opposite direction. To the amazement of all hands he ran on, downed the ball behind his own goal line, and then began to cheer, believing he had made a touchdown.

The men do better at baseball, which is very likely due to their having had more practice in it before entering the service, for almost every American boy plays the so-called national game. There is also more opportunity for baseball, as it can be played nearly all the year round in the climates in which the ships cruise. Hot climates do not seem to interfere with it, as I have seen a ship's team play all summer at Key West. There is a keen rivalry between the teams of the different ships, and in the summer time matches are of frequent occurrence.

Racing in pulling boats is a time-honored sport in the Navy, and the one which the men like the best of all. Almost any Blue Jacket will bet all of his money on his ship's crew and will help liberally in fitting it out.

Photograph by James Burton.

BOXING ON THE FORECASTLE

Last June while the *Kearsarge* was in Newport harbor, her crew decided that they wanted a new race boat. A boat that suited was found, the price being eight hundred dollars. A subscription list was posted on the gun deck bulletin board one evening and in a few hours the necessary sum was sub-

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scribed by the ship's company. Next day the boat was purchased and hoisted on board.

All enlisted men in the Navy are taught to pull an oar, and as a general thing the racing is done in the regular boats of the ship, but it is common for the large vessels to have a lighter cutter or barge, built and kept especially for racing and for training crews. Such boats have about the same shape and length (30 feet) as the ordinary Navy cutter, but are lighter and faster, being built to pull ten or twelve oars and weighing eleven to fifteen hundred pounds. It is always carefully looked out for by the men, who require no special orders to do so, and before a race the crew will spend days scraping and polishing its bottom so that it may glide through the water with as little resistance as possible. There is sure to be on board ship some coxswain or other petty officer who is an old and experienced hand at training boat's crews, perhaps who has been through many hard races, and he usually trains the crew, but may be assisted by officers or by others of experience.

The crews train for about a month before pulling an important race, and during that period pull from five to eight miles twice a day whenever the ship is in port, keeping up a good rate of speed all the time. On the return trip the coxswain likes to take the boat close aboard and pass the ship in what he considers the best form and speed, while the whole ship's company looks on with expressions of admiration.

It is not all admiration, however, as there are many critical and experienced eyes picking out the defects in the rowing of the different men of the crew. It is needless to say that these long practice pulls give the men great endurance. The course for the race is four or five miles long. Sometimes it is straight away, or it may be laid around one or more buoys in the harbor.

As a rule, the stroke is about thirty-five or thirty-six per minute, with a short spurt at the end if necessary. A petty officer of experience in such matters recently remarked to me that "any man can pull a two-mile race and make a fair showing at three miles, but it takes a trained man to pull four miles, and a well-trained one to pull five." American crews nearly always win international regattas of man-of-war pulling boats, and as it is usual in such races for the different crews to use the boats of their own ship, the success of our crews has been said to be due to the superiority of our boats. I however believe our success to be due to a more rational stroke and better form.

A few years ago the crew of one of our gunboats won a five-mile race from the crew of a foreign cruiser at Montevideo. In this case two boats belonging to the Captain of the port were used. It was claimed by the foreigners that our crew had the better boat and that the result would have been different had they used it. In consequence, another race was pulled three days later, the boats being exchanged, and again the Americans won.

Swimming is an accomplishment which most men in the Navy have acquired, and in which many become experts. There are several reasons why a sailor should know how to swim. It is an excellent exercise, a source of pleasure and amusement, and there may be a time when it will save his own life, or enable him to save the lives of others. Great importance therefore is given to teaching the men to swim. A recent general order of the Navy Department requires that a certain period of each day shall be set aside, whenever the weather and other circumstances will permit, to allow the men to go in swimming, to the end that every one in the ship's company may learn how to take care of himself in the water. When ships are anchored in warm waters where there is no danger from tide, sharks or infection, the call is sounded some time in the afternoon or evening. A boom is lowered into the water, and a boat sent out to go to the assistance of any one needing it. A large proportion of the crew dive over the ship's side or go in over the boom, and there is great sport for fifteen or twenty minutes watching the Jackies frolicking in the water. Men who cannot swim and who are timid about going over the ship's side are sent ashore to the beach for instruction.

The camp routine at Nantucket last summer had two periods a day for swimming and every man in camp not on guard duty was required to go in. The four or five hundred men bathing at the same time gave the place the appearance of a summer-resort beach, except in the matter of bathing suits.

Boxing is also one of the athletic sports which the regulations recommend for the enlisted men and is encouraged on all ships. An order recently issued by the Commander-

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in-Chief of the North Atlantic Station requires that all the apprentices of the squadron shall be taught boxing, and that they are to be given practice in a ring on shore whenever possible. An officer from the flagship was detailed to take charge of this boxing instruction and when the weather was favorable, and the ship at anchor, parties were sent ashore in the morning for practice in the manly art. During the shore operations of the squadron at Nantucket Island in August, four posts were sunk into the ground and a boxing ring was roped off in one of the company streets of the camp. Every evening after dress parade there were numerous bouts between the men of the different ships; and as there were always about four hundred spectators, each a fairly good hand with the gloves, the ring was not unoccupied until darkness set in. Boxing is also a favorite recreation on board ship in the evening after supper. At sea, during the second dog watch, I have seen many interesting and amusing knock-outs on the forecastle. The Master-at-arms often settles quarrels between the men by having the angry parties put on the gloves. In that way they do each other no serious injury and a good fight almost always ends by the contestants shaking hands and being friends ever afterward.

It is practically impossible on board ship to engage in field sports such as running and jumping. On Thanksgiving day and other holidays, deck sports are sometimes held, small prizes being given for the different events, but these can hardly be considered as of a high order of athletics, though they have their place in providing good healthy amusement. The events include sack races, potato races, obstacle races, and tugs of war. The games usually end with a pie-eating match, which is the most fun of all. The competitors in this have their hands tied behind them and are seated on a bench at a table. Each has a pie in front of him and at the word he tries to eat it as fast as possible. The athletic part is in controlling the pie without the use of the hands. The contortions which the pie eaters go through are great amusement for the spectators. Sometimes the elusive pie goes off the table onto the deck,

FOOTBALL TEAM OF THE BATTLESHIP *KEARSARGE*.

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Photograph by James Burton.

THE SETTING-UP DRILL.

but this does not discourage the fellow that is trying to eat it, and he goes after it and finishes it there. The ship's cook makes the pies durable enough to stand hard usage.

There is a committee of officers in the North Atlantic Squadron made up of representatives from each ship whose object is to promote general athletics among the enlisted men, and to give them as much assistance as possible in arranging and carrying out their sports; and efforts are made to encourage games and sports on shore as often as the exigencies of the service will permit. A most successful programme of field sports was carried out under the auspices of this committee on the grounds of the U. S. Naval Training Station at Newport last July. The fifteen events included running, jumping, throwing the hammer, putting the shot and swimming, and a small prize was given to each winner. Competition was close between the men of the different ships, the crews of the battleships *Kearsarge*, *Alabama* and *Massachusetts* being entered, and the first named winning by a good margin. The performances were very good and the interest taken by the men very gratifying.

Owing to the conditions under which he serves, and the limited opportunities for practice, the Blue Jacket will probably never be able to excel in shore games, although he will continue to take a lively interest in them, and play whenever he can. Athletic competition among ships' crews cultivates an *esprit de corps* and makes the men happier and more contented, as well as giving them great physical benefit.

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RUFFED GROUSE ON HER NEST—PHOTOGRAPH TAKEN BY J. H. LEWIS IN MAINE.

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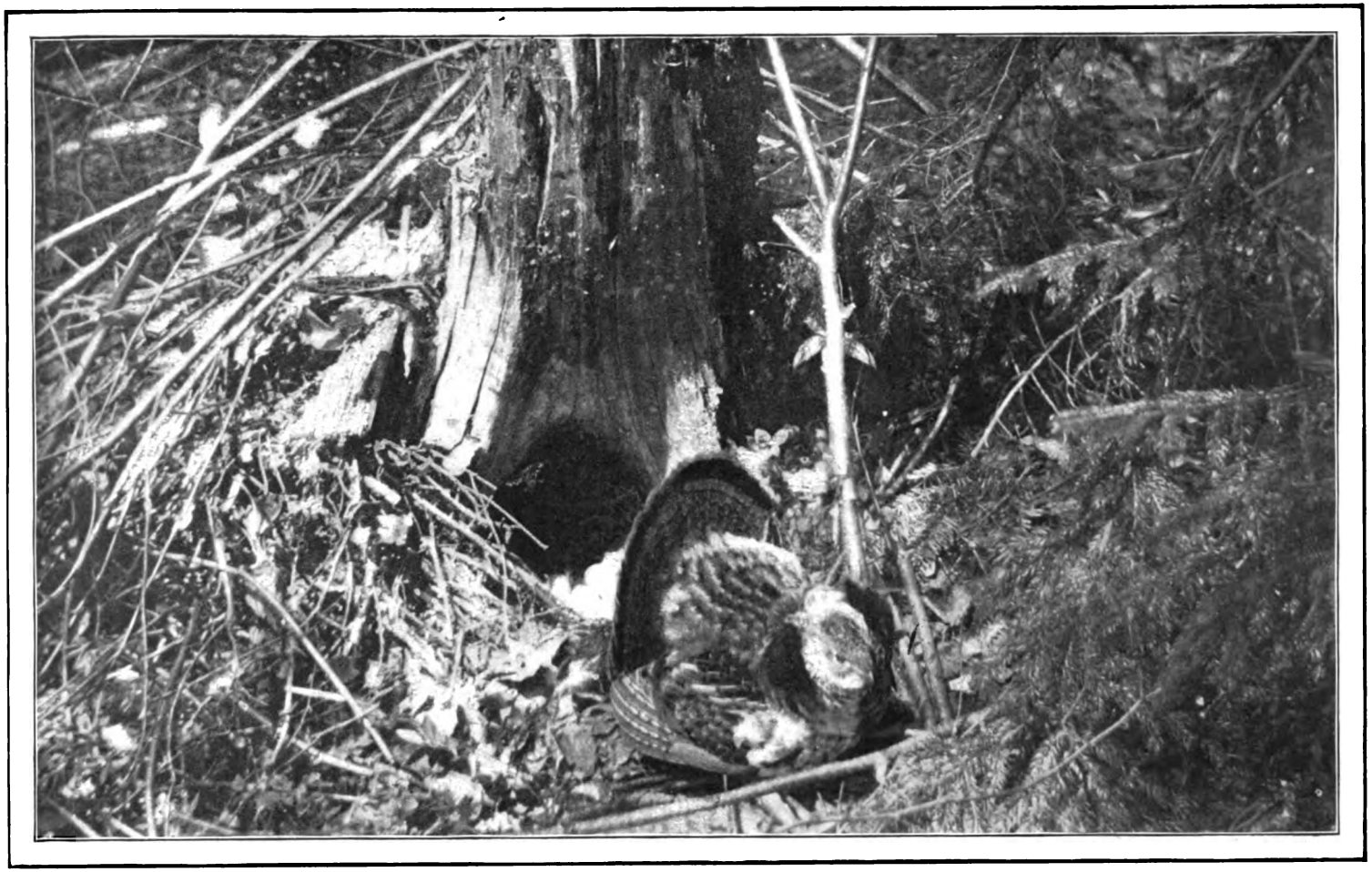

THIS PHOTOGRAPH, TAKEN A FEW MOMENTS LATER, SHOWS THE COURAGEOUS GROUSE DEFENDING HER EGGS AGAINST THE INTRUDING MR. LEWIS.

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A FAVORITE PANTHER DEN, NEAR SHAFTER LAKE.

THE GAME OF THE STAKED PLAINS

By Robert M. Barker

THE sportsman who is fortunate enough to visit the Llano Estacado, or the Staked Plains of the great Southwest, will find much to occupy his time with rifle and shotgun, and, after a short stay, become convinced that few sections of the United States surpass it in extent and variety of game. Here are found in goodly numbers antelope, black-tail and Virginia deer, cougar, called panther; and bobcat, called wildcat here; badgers, wild hogs, wolves, duck, quail, snipe, curlew, plover and prairie chicken.

The Staked Plains spread over a vast area, being located principally in northwestern Texas, between the Red River and the Indian Territory on the east and across the Pecos River and far into New Mexico on the west, in which latter territory they meet the Guadalupe Mountains and other detached chains of the Rockies. Over a dozen counties are included in these plains, nearly all of them being sparsely populated, two, indeed, containing less than fifty inhabitants each. Despite the absence of trees, the land is a beautiful rolling prairie, covered with a luxuriant growth of native grass and diversified by picturesque windmills, artificial surface ponds, dry salt lakes and sand hills; the whole country looking not unlike a vast orchard of dwarf peach trees with its millions of thorny mesquite bushes. Much of the soil is red clay and sand, and, in some places, particularly about the salt lakes, considerable quartz, sandstone and conglomerate are revealed. Over these plains extend the greatest cattle ranches in America, most of them being miles from railroads, stage coaches, newspapers, post offices, telegraph lines and other tests of civilization, but all are connected by a unique long-distance telephone system in which the barbed wire of the fences plays the most important part. With such an environment, it is but natural to suppose fine hunting exists. From November to April, while work is light, the ranch owners and cowboys find great pleasure in the excitement of the chase, for which the freedom from barriers, natural and artificial, the high altitude and clear, dry atmosphere are so favorable. Absolute isolation of country and excellent facilities for water and food account for the prevalence of game, despite the fact that the surface of the land affords so few hiding places from the eye and gun of man.

Perhaps the largest and most sought animal found to-day in the Staked Plains is the panther. Mention might be made of the bear were his presence not such a rare occasion. Once in a long while, a brown bear is met in the pastures, when a venturesome cowboy lassoes and chokes it to death. The tracks of panthers, like those of wildcats, are frequently seen about the shores of the salt lakes, but so wary are these sly creatures and so clever at hiding that it is next to impossible to track them without dogs. High up among the red clay banks and shelving rocks of a precipitous ravine at Shafter Lake is seen a favorite den where panthers have for many years raised their young. Not far distant is Panther Point,

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a bold promontory extending far out into the lake, its rough exterior suggesting numerous retreats for the big tawny cats.

Mr. J. F. Bustin, manager and part owner of the big Shafter Lake Ranch, keeps a small pack of well-trained dogs, about fifteen in number, and rarely suffers loss of cattle by the depredations of wolves. All the dogs are Kentucky fox-hounds, with the exception of "Queen," who shows much greyhound blood. She is a large and powerful dog, captured when a puppy from a pack of timber wolves with which she had been running on a neighboring ranch.

Not long ago, the Bustin pack found a large panther at Whalen Lake. Led by "Queen," the dogs attacked it with all the confidence bred from killing wolves. The swift and furious onslaught took the panther by surprise and before he could reach one with his great forepaw the courageous dogs had him stretched out dead.

In quest of prey panthers cover a wide area, and are not infrequently met by horsemen at the most unexpected moments. Some time ago, Mr. W. E. Gates, a Texas ranchman, came upon one in the road near his house, lassoed and dragged it to death. Because of the absolute fright of a horse in the presence of a panther and, too, the wonderful ability of the latter to spring when cornered, to lasso one successfully is neither the simplest nor safest undertaking. Like wildcats, panthers kill their prey, run at the sight of man, and subsist on rabbits, prairie dogs, snakes and smaller pests. They never attack cattle, but have a peculiar fondness for colts. Scarcely a single horse pasture goes long unvisited.

Wildcats have been killed by the dozens about the shores of the salt lakes. A damp morning is the preferable time to hunt them with dogs, for they step lightly and leave but little scent. Once fresh tracks are found, the cat is sure to be located in the neighborhood, for, unlike the wolf, it is not a long-distance runner, but prefers to crouch low in the grass with the hope that the chase will pass by and away. However, when once started, the cat slips off with surprising agility, springing over broad gulches and running up and down steep declivities. After three or four hundred yards, it slackens speed and takes refuge in the thorny chaparral or among the protecting branches of the few dwarf cedars, where the dogs, puzzled by these tactics, are brought to a standstill. The cat is soon dislodged and then comes the fight. When the fray begins, the cat crouches and prepares to jump on the nearest dog. Meanwhile the dogs surround it only to be repulsed by the strong forepaws and sharp claws of the cat, which does most of its fighting with its feet. The fight lasts about twelve minutes.

Not long since a wildcat was treed at Shafter Lake. Attempting to escape, it sprang into an abandoned well, from which it was rescued with a rope. The horsemen brought it to the surface uninjured and gingerly tossed it to the anxious dogs, its fighting quality unimpaired. Occasionally the cowboys run across a wildcat unexpectedly, when they lasso and choke it to death. Attempts have been made to domesticate the kittens, but have signally failed.

The most pleasing sight to the sportsman's eyes, however, are the antelope, now protected by law under heavy penalty, seen every day cantering over the plains in herds of a dozen to forty members, their graceful heads nearly always aloft sniffing the atmosphere for approaching danger. In the vicinity of the salt lakes, where the land rises and falls like the swells of an ocean, antelope are most often seen, flying across the level plains or browsing contentedly on the crests of the undulations. Two or three animals are always on guard while the others feed, and, unless the wind is favorable, it is almost impossible to get near these animals. Occasionally a cowboy or other in isolated sections is tempted to shoot one to replenish his not too abundant larder. Early settlers recall seeing antelope on the Staked Plains in herds of several thousands, in some pastures far outnumbering the cattle and sheep.

The red or Virginia deer is the only member of the deer family on the Staked Plains, and, except at occasional periods, is not a common sight. Once in a while a herd of a dozen or fifteen is found in pastures among cattle, after which a long time ensues before those pastures are visited again. In several instances cowboys have been known to overtake deer and capture them with a lasso. In fact, one man has the unique record of three such captures. It yet remains for some daredevil spirit to secure an antelope with the long rope.

In western Texas, midway between the boundary line and Shafter Lake, which is named in honor of General Shafter for

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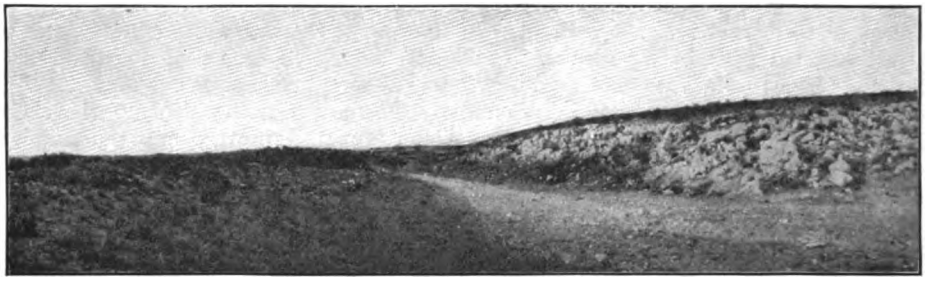
his Indian campaigns in this section, is Whalen Lake, another dry salt lake, in size about two miles long and one mile wide, a trifle smaller than Shafter, but resembling it closely in the rocky and rugged character of its shores. Whalen Lake is nestled snugly in a wild, desolate but richly fertile region, never visited by cattle and but seldom by man. After a hundred fruitless attempts at sinking deep wells for water, this otherwise magnificent grazing country has been abandoned for ranch and other purposes. Game abounds here, and among other large animals is frequently met the havilene, or Mexican wild hog. This ugly and repulsive-looking beast runs in droves of half a dozen or more and is most often seen in the sand hills to the south of the lake, rooting here and there with its long snout for mesquite beans and the acorns of the "shinnery" or dwarf oak tree. The havilene looks not unlike the domestic hog, but is smaller, seldom weighing over one hundred and twenty-five to fifty pounds. However, he has nothing in common with the "razor-back," being plump and compact, and having a smoky brown hide, which is sparsely covered by coarse bristles. The snout is surmounted by four large tusks, two on each side, running opposite to each other. Hunting the hog is done on horseback with dogs. He makes a savage fight and is easily the master of two dogs. His presence is denoted by the clinking and gnashing of the scissor-like tusks. Occasionally, when sharply pressed, the hog will turn on the horses and attack their fore legs.

Most common is the coyote or prairie wolf, but most dreaded is the "lobo" or timber wolf. "Lobo," however, is seldom seen, but dead cattle give evidence of his frequent presence on every ranch. His method of attack is first to sever the hamstrings or tendons of the hind legs, rendering the victim powerless to move. He then proceeds to gorge himself with the choicest portions, leaving the rest of the carcass for his poor and humble relations, the coyotes.

When it is remembered that there are no trees on the plains save the mesquite bush and an occasional cottonwood it is surprising what a great number of game birds are seen at various seasons of the year, enough to gratify the whims of the most ardent shotgun enthusiast. Most common of the birds is the Mexican or blue quail, which, in many sections, are as numerous and as tame as sparrows. In fact, on several ranches, they swarm about the barnyards and gardens so peacefully that the owners, fond of their presence, forbid their destruction in the vicinity of the houses. The Mexican quail is first cousin to Bob White, which it resembles in size if not in color, the back, wings and head being a bluish gray with a tuft of the same color on its head. He is met everywhere in coveys of a dozen to fifty members, walking rapidly over the ground, feeding on insects and seeds, and making a cluck-cluck, which sounds not unlike the chatter of prairie dogs. Such good pedestrians they prove that they are almost as difficult to follow as if they flew. When closely pressed, they arise and fly a few hundred feet, and then alight, proceeding at a slower pace and getting more exhausted at every step. When they arise again, their flight is awkward and slow, and the hunter can easily secure a half dozen or more at one



A RAVINE POPULAR WITH BOBCATS AND RATTLESNAKES.

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shot. When unarmed, the cowboys occasionally run down a covey on horseback, and, before the exhausted birds have time to hide in a rat nest or rabbit burrow, they dismount and pick up several. Formerly quail were trapped in great numbers for market. It is now against the law to snare quail, while they can only be shot during certain months. Curlew are less common than quail, but their pretty little whistle is heard all over the plains. Like quail, they hover about the chaparral and feed where the grass is most tender. They are more often on the wing than quail and fly in coveys of thirty to sixty each. Prairie chicken are still to be found here and there, in small numbers. Rarely is the wild goose seen, for it is only in unusually wet periods that he alights on his long flight between the north and the south, but ducks—mallard, canvasback, redhead—are plentiful in the autumn, and jacksnipe in the summer. Occasionally a wild turkey is killed, but, owing to the absence of suitable roosting places, it gives the plains a wide berth. In order to find the turkey in quantities, the hunter must go to the woodlands on the edges of the plains.

While the Comanche Indians have left for the happy hunting grounds, and with him gone the wild horses, the great horned Texas cattle and the countless horde of buffaloes, the environment of the Staked Plains is almost as wild and primitive as ever. In place of the buffalo the tracks of registered cattle now cover the plains, and instead of carrying the bedaubed and befeathered buck warrior, the little Spanish pony now takes the opulent ranchman in and out among his sleek Herefords and Durhams, and between intervals of herding cattle, mending windmills and poisoning prairie dogs, he manages to enjoy rare sport with dogs, rifle and shotgun, meanwhile declaring that the Indians are not the only possessors of happy hunting grounds.

SHAFTER LAKE RANCH—SETTING OUT FOR A WOLF HUNT.

A STUDY OF THE FACE IN BREATHLESSNESS

By R. Tait Mackenzie, M. D.

NO series of races would be complete without tests of endurance as well as speed. The burst of speed shown by the sprinter in a hundred yard dash, tests to the utmost his powers of concentration and rapid muscular action, but it gives but little information about his lungs. It is a test of muscle and nerve rather than of heart and lungs.

When the distance to be covered is a quarter or half a mile, a stout heart and sound lungs begin to play a more and more important part, and they have to be carefully prepared to stand the great strain. When we consider that a good runner can go for a half a mile at the rate of less than thirteen seconds to the hundred yards, and for a quarter at a rate of less than twelve,

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THE PACE HAS BEEN TOO HOT FOR THE LAST MAN WHO IS TRYING TO KEEP HIS PLACE.

we can readily understand how these distances test both speed and endurance to the utmost. In these distances it is the pace that kills. It is said that a horse trots with his legs but gallops with his lungs; so a runner jogs a cross country steeplechase with his legs but runs a half mile race principally with his lungs.

The symptoms of breathlessness come on much more quickly in an untrained man, especially if he has reached an age when violent exercise has become somewhat of an effort. Have you ever found yourself in sight of the station and been afraid of missing your train? You have a quarter of a mile to traverse and two minutes to do it—you have to run—and for years you have been accustomed to the measured pace of one who walks when he has plenty of time and who takes a cab when he has not. You want to catch the train and so you set off as hard as you can run. Your legs are strong and it does not hurt them when you run; however, after a few seconds a peculiar distress seizes you, your breathing is embarrassed, a weight seems to press you down and a bar to be fixed on your chest, your breathing becomes jerky and irregular. With each step, distress increases and becomes more general; your temples throb violently, an insupportable heat arises to your brain and an iron band is tied around your forehead. Then there is a surging in your ears, your sight is disturbed and you have a confused idea of the objects you pass and of the people who turn to stare at your pale and dishevelled figure. You reach your goal and as the train

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whistles you sink exhausted on the cushions; there, in spite of the satisfaction of having caught your train and the solace of being seated, your distress continues—still for some minutes you are all out of breath, and the last hurried movements of your chest make you resemble a man seized with a violent attack of asthma. This is what Fernand Lagrange calls being winded, and although the athlete can, by training, postpone this condition, still, when it does come on, it is just as hard for the athlete to bear as for the untrained person just referred to, except that the athlete recovers more quickly and has not the same risk of permanent injury to his heart.

The onset of breathlessness is marked by a quickening of the circulation; the eye becomes bright, the face flushed and the skin ruddy. The breathing becomes deeper and more rapid and there is a glow of warmth throughout the system. This is due to the stimulation of the poisons set free in the blood current from the great muscles of the thighs and legs, now in rapid and violent action. Soon the waste matters accumulate in such quantities that the lungs begin to lag in their effort to throw them off. The balance is upset and the breathing becomes more and more hurried, shallow, and spasmodic in character and a vague discomfort comes on which rapidly grows to acute distress. There is a sense of constriction in the chest, murmurs and ringing in the ears, flashes before the eyes, mental confusion and even unconsciousness. It is when in this condition that runners do unaccountable things, swerving or falling, or running blindly into obstacles; it has even gone on to fainting and death and we have at least three stories coming down from antiquity, of death from either fatigue or breathlessness.

After the battle of Platea, when all the sacred fires profaned by the Persians were extinguished, Euchidas in one day ran to Delphi and back before sunset, 1,000 stadia, and brought the pure fire from the altar of Apollo to his fellow-citizens, but sank to the ground and died under the terrible strain. Then there was the unnamed soldier who ran from Marathon to tell of the defeat of the Persian army, only to fall dead before the magistrates in Athens; and the famous athlete Ladas, who fell lifeless at the goal having run twelve stadia of two hundred yards each.

While a fatal ending is practically unknown in modern distance racing, it is not uncommon to see a man faint. His face becomes dusky and leaden, and his lips blue and livid. The breathing becomes jerky and shallow, and this respiratory madness, this distress of mind and body, is always mirrored in the face of the struggling man.

In this photograph, Fig. 1, the runners are a little more than half way in the mile race of an intercollegiate meet. The pace has been too hot for the last man who is trying hard to keep his place; he is suffering from acute breathlessness, coupled, we may assume, with the distress of mind that accompanies a sense of defeat. This is shown in his drawn and haggard face. The lines of pain in the gaping mouth, and the changed direction of the fold from nose to mouth are unmistakable. His eyebrows are carried obliquely upward at their inner end, while the eyelid, drooping between pain and fatigue, completes the anxious and distressed look of the pinched face.

The eyes are half closed and all photographs I have seen of this condition, and my own observation of this point, would tend to confirm me in my belief that this is the usual condition, although Fernand Lagrange describes the eyes as widely open, in breathlessness. The mouth is always open and the nostrils are distended to favor the entrance of the air which the lungs so greatly need.

In Fig. 2 we have the expression of face typical of breathlessness. In this mask the smoothness of the forehead is broken by wrinkles spreading out from the inner end of the updrawn brows. The direction of the eyebrows is just the reverse of that seen in violent effort. This is due principally to the action of a small muscle at the inner end of the eyebrow, sometimes called the muscle of pain. It is brought into action to express the languor of grief and mental distress, as well as bodily pain, but the particular shade of meaning would depend greatly on the prevailing cast of the rest of the countenance. The upper lids have drooped and half covered the eyes, adding a look of great lassitude to the suffering in this part of the face.

The wings of the nose are pulled outward and the nostrils dilated; the mouth is widely opened, and the lips retracted from the teeth in the struggle for air; for the lips

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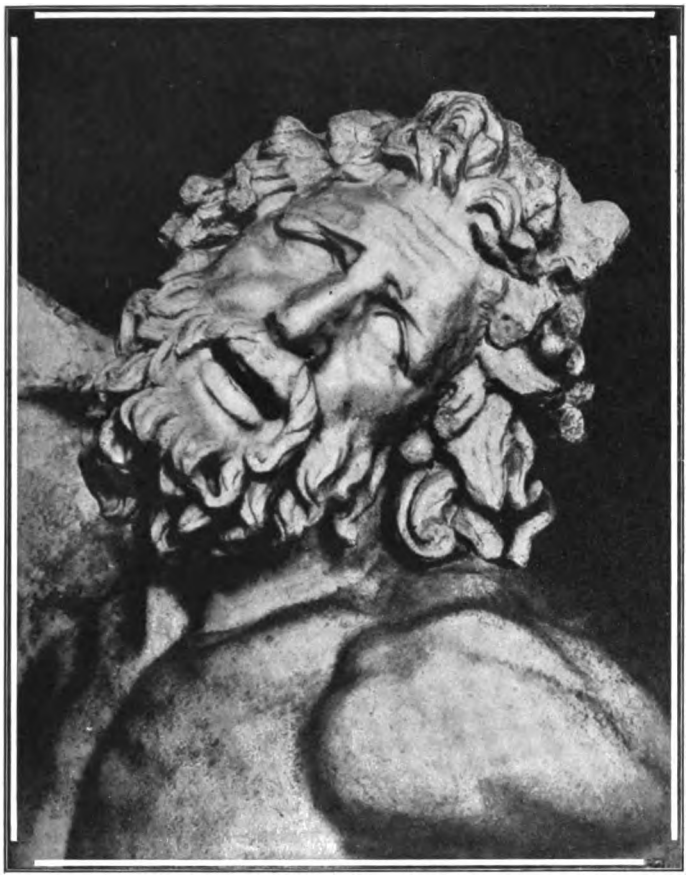

THE PANTING AND OPEN MOUTH OF LAOCOON.

and nostrils are the gates to the passages leading to the lungs. The curve of the upper lip and the deepened and changed fold from nose to mouth, add a gasping look to this part of the face, which is increased by the drawing down of the mouth angle. The tongue is close pressed against the teeth, and the cheek sinks into the cleft between the open jaws, giving the face a careworn and haggard look that is quite different from that of either bodily pain or mental suffering. The general pose of the head is backward, with the chin thrust forward as if to rest the neck muscles, and at the same time to make straight the way from the lungs to the outer air. In many runners the neck is convulsed by the action of the muscles straining to suck in the air to the laboring lungs.

It cannot be denied that all such expressions are repulsive and unbeautiful, so there is little wonder that artists, in depicting breathlessness, have sought to express it by pose and accessories rather than by the horrible realism of the face. Several years ago at the Royal Academy exhibition a picture of the death of Ladas was shown. The athlete is painted with his back to the spectator, his knees beginning to yield and his hand clasping his heart. His face is only partly seen, but the tragedy can be read in the startled and horrified look of the judges, whose gaze is riveted on the dying man, with the most intense fascination. The effect is greater than if the artist had tried to express the idea by the face alone. "In bodily pain," says Bell, "conjoined with distress of mind, the eyebrows are knit while their inner extremities are raised, the pupils are in part concealed by the upper eyelids and the nostrils are agitated."

Breathlessness as seen in a runner would have this mental anxiety associated with the bodily distress, so that the two conditions would correspond closely, and the expression seen in runners is about identical with that just referred to by Bell, with the addition of the gaping mouth and expanded nostrils.

The Louvre contains a statue by Jean Paul Cortot showing the soldier of Marathon announcing the Greek victory. The man has fallen breathless and exhausted but partly raising himself with his left hand, he holds the torch aloft in his right with a last supreme effort. The abdominal muscles are contracted, the chest is strained and the face shows his condition forcefully yet with perfect artistic restraint. The open mouth, the agitated nostrils and oblique eyebrows, with eyes just turning up in death, are expressed with wonderful vividness and truth.

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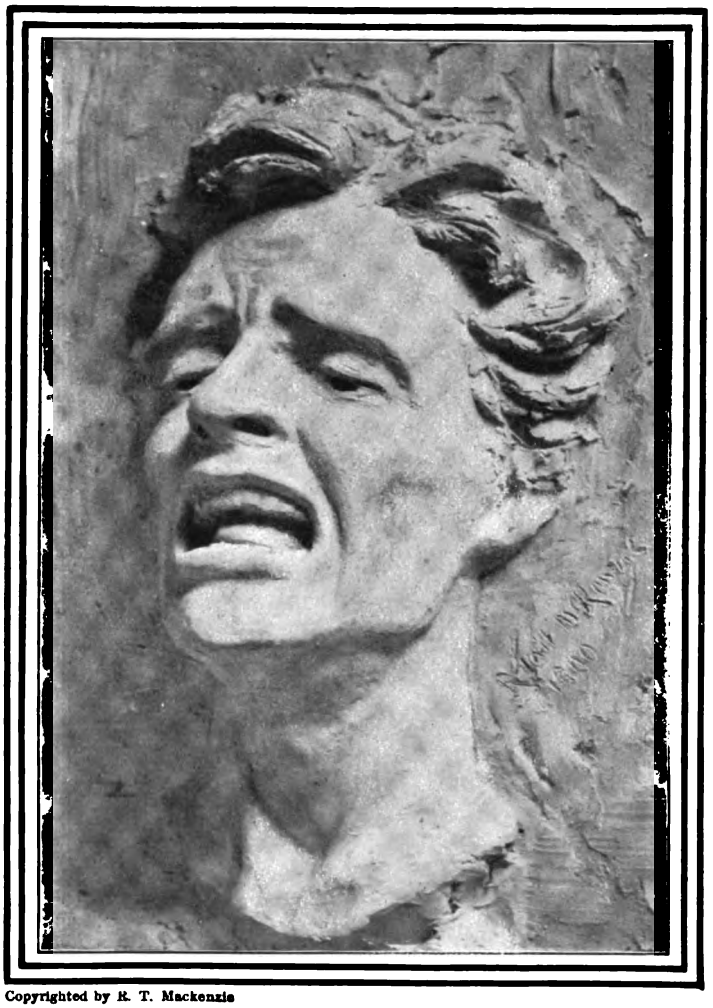

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THE MASK OF BREATHLESSNESS.

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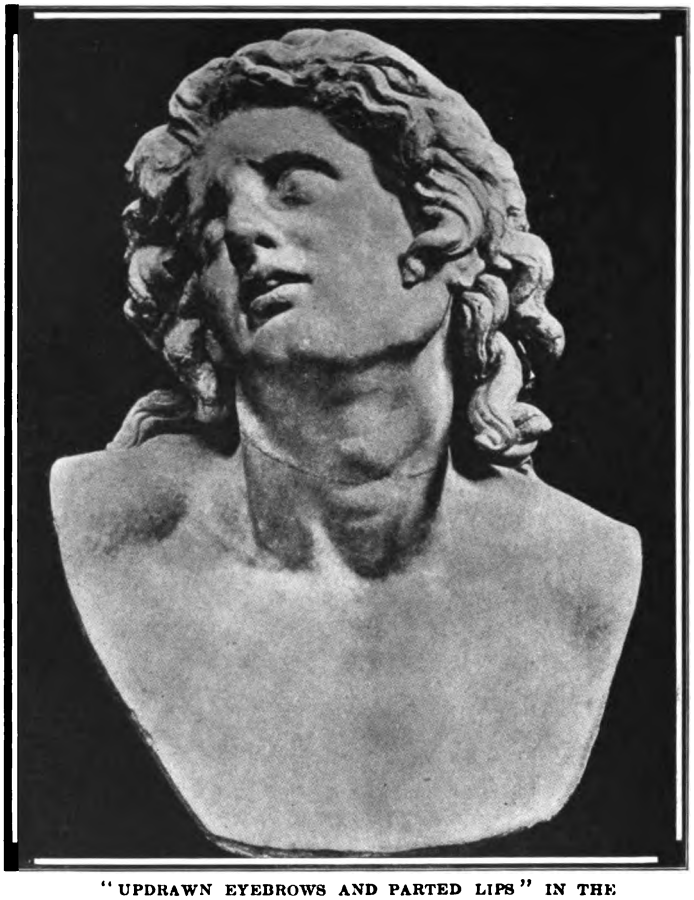
The turning upward of the eye is always used by artists to show the approach of death. In the bust of the dying Alexander, this is skilfully used, together with the oblique updrawn eyebrows and parted lips, to express the languor and suffering of a dying man; the pose of the head expresses the lassitude and weakness of approaching death.



"UPDRAWN EYEBROWS AND PARTED LIPS" IN THE BUST OF THE DYING ALEXANDER.

No discussion of breathlessness would be complete without considering that remarkable group that has come down to us from the hands of the three Rhodian sculptors, representing Laocoon and his two sons struggling in the coils of the serpents sent up from the sea by Apollo. He is shown by the sculptors leaning against the altar on which the drapery has fallen. The elder son still resists and looks towards the father in concern, the younger is sinking in death. The less tangled form of the elder, the fierce spasmodic actions of the man himself, strong and terrible in his agony, the helpless dying form of the younger son already relaxing in death, all unite to leave in the mind an impression painful but powerful. The swelling chest and contracted muscles show that the struggle has left him breathless and panting, the poison of the serpent's bite is beginning to circulate through his veins; he feels his strength go, and mingled with the pain is the agony of impotence to save his two sons. This tremendous emotion has to be shown in the face. The forehead is creased by the lines of pain and the eyebrows are obliquely updrawn. The eyelids are beginning to droop over the upturned eye, the mouth is open and panting. He has been described by some writers as bellowing like a bull and as crying out in his agony, but the knitted brows and the retracted lips, the extended head and heaving chest, can be altogether accounted for by the breathlessness of the strain and the tug of the fight. The thought of his crying out seems to me to weaken the force of the artist's idea and make the expression commonplace. This face joins the brows of pain with the open gasping mouth of breathlessness, and the drooping lids of weariness and approaching death.

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DUCK SHOOTING ALONG THE COLUMBIA

By Joseph B. Thompson

THE extensive lowlands of the Columbia River valley in Oregon and Washington from Vancouver to the Pacific Ocean, furnish the best water-fowl shooting on the Pacific Coast. Other parts of the Pacific northwest, notably the Klamath Lake country in southern Oregon, have attractions in this respect also. The valley of the Columbia is partly covered with numerous freshwater lakes and sloughs and is to some extent subject to overflow annually from the June rise in the river. The climate is mild throughout the year, snow falling only occasionally and remaining for a short time, and the lakes seldom freezing over. The kinds of food required by water-fowl are, or were, abundant; for while the soil of the lowlands is mostly used for dairying and grazing, there is much food in the sloughs and lakes as well as on the neighboring farms. Some of these lands are well covered with timber, many of the sloughs being entirely surrounded by woods, these furnishing excellent protection and cover for the game. Perhaps, until very recent years, no part of the United States provided better shooting, quantity as well as quality considered, than this section. The quantities of ducks, geese and swan frequenting those waters in the autumn and early winter were almost beyond belief. It is a fact probably due to climatic and other natural conditions that the shooting here does not often last beyond the first or middle of January, although the open season is from September first to March fifteenth; there is, indeed, no good spring shooting, the birds being poor and not very abundant. It is during their flight southward they make that country a resting place, the length of time depending somewhat on the kind of duck, but usually they remain only until the first hard frost, which may be expected in January, when it is time to move on, and they wing their way southward. On their way north in the spring they do not linger but push on along the Columbia in its course of a thousand miles or more through eastern Washington and British Columbia, to their hatching grounds.

Much of the best duck-shooting ground is now owned or controlled by private clubs or associations having headquarters at Portland, and is carefully guarded against trespassers.

It is the custom, becoming more and more common, to select one or more sloughs as the hunters may require, and systematically feed them, commencing a little before the opening of the season and continuing until the close. Wheat is generally used, being scattered in the shallow water along the edges of the slough near where the blinds are to be placed. As soon as the ducks discover this they will come regularly to feed, the number increasing as time passes. On such preserves shooting is generally allowed only one day in the week, although at some places it is permitted oftener. Most of the devices for slaughtering ducks, common in earlier times, such as swivel guns and sink boxes, are now prohibited by law, and the position and location of blinds are regulated so as to favor the preservation of game. A country that has good canvasback shooting is pretty sure of receiving favorable consideration from sportsmen. There was a time, not very remote, when those ducks were as abundant along the Columbia River and its tributaries as they ever were in the waters of Chesapeake Bay; and their flesh was as fine. Famous they were with epicures, and their fame justly deserved. The wapato (the Indian name of the *sapettaria variabilis*) a bulbous plant which grew plentifully in the freshwater lakes and ponds contiguous to the Columbia River, was food not only for these birds, but also for the Indians; and a canvas, after having fed on this bulb for three or four weeks, made a dish fit for the most fastidious.

It was the way of the duck hunters to ignore all other ducks, mallards, teal, widgeon, sprigs, and to confine their shooting entirely to canvasback (*Aythyra vallisneria*). In a good year, and most years were good there, it was not difficult to kill all one could carry.

Of late years—since about 1894, to be more exact—canvasback are not so abundant, nor as good eating; the cause being

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generally attributed, no doubt correctly, to the almost total disappearance of their favorite food—the wapato. Others believe the reason a different one. In an unfortunate moment, some impulse, not wholly for good, prompted a certain United States Fish Commissioner to plant in these haunts of the canvasback, the lowly and inglorious carp. Why this was done no one yet seems to have ascertained. It could not have been because good fish were lacking, for the Columbia and its tributaries were full of the lordly chinook salmon and other varieties of the same fish, and the smaller streams were alive with trout. At any rate the carp were brought in and, like most things undesirable, they stayed and throve prodigiously, and from that time every green and growing thing in the feeding ground of the ducks began to disappear until finally, about six years ago, few wapato and very little else, which might be classed as food, could be found there. The high water of 1894 may have aided the carp by depositing silt and sand over these lakes and ponds. The food being gone, the canvas went also; and the few that are shot now are poor and flavorless. The present indications promise better things, however; for it is believed that the wapato was not totally exterminated, and that with care and the destruction of the carp the canvas may again flourish as in years past.

The first duck of the open season, which in Oregon is between September 1st and March 15th, and one always a great favorite with hunters is the wood-duck (*Aix sponsa*). It rears its young in the lowlands, and takes its flight southward soon after the season opens, disappearing before October 1st, although occasionally seen much later. At first these ducks are tame and not inclined to move far from their resting places, preferring to stay close among the tall grass and sedges, and the willow-fringed ponds. Later on the birds move about more freely, and the shooting improves. They are easily attracted by almost any sort of well-placed decoy and are best hunted from a blind, or under proper conditions they furnish excellent sport in flight shooting. They have been feeding on acorns and in grain fields and meadows and their flesh is of fine flavor and as good as that of mallard or teal. Perhaps before the wood-ducks have taken their flight, the blue-winged teal (*Anas discors*) with his rapid, almost silent flight and his subdued quack; or his more plentiful brother the green-winged teal (*Anas carolinensis*) may have arrived from the northland and taken up his abode for a month or so, to fatten on the grain and other food awaiting him. If teal are abundant and "come" just right even an old canvasback shooter after a good morning's sport at these small and beautiful birds, is almost ready to declare that there can be no finer sport. Of course each season will not bring them in the same numbers, nor are they found everywhere. They seem to favor one locality more than another. Usually, however, it is possible with care and judicious feeding to draw them to a given point in sufficient numbers to give fine sport. At times they are very abundant, recalling the stories of years past in the waters of the South. At one small lake, one of the best places along the river for this kind of ducks, four hunters in one day, shooting morning and evening, made a record of more than four hundred of these birds. This smacks too much of pot-hunting to please a real sportsman; and it is cause for congratulation that a slight check was placed upon such slaughter by the last Oregon legislature which limited the number to one hunter to fifty in a day or one hundred in a week. This is far too generous. Nevertheless these were all killed on the wing, and those who did the shooting claim to be sportsmen.

The widgeon or baldpate, as it is also called (*Anas americana*) one of the most beautiful of water-fowl, and one that furnishes as good shooting as any, is on hand before the little teal are gone. This duck seems at times to be nearer domesticity than the mallard. Certainly it is friendly, and its constancy is shown by returning to the place where its companion has just been killed, perhaps itself to fall a victim to the gunner. The widgeon seems, too, to love sunshine, hence the best shooting is on a bright, sunny day when the air has an echo of winter and the wind is fresh from the northwest. The confiding nature of this duck is again illustrated by the readiness with which it decoys. It can even be brought within range by a skilful imitation of its half plaintive, half-joyful call. This is not due to silliness at all, but to the over-confidence of an affectionate nature. At times widgeon are very abundant, and when such is the case the shooting is superb

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sport. The flesh equals that of the teal, especially after they have been in fresh water for some days.

The mallard (*Anas boschas*) is to-day, perhaps, the favorite of all duck hunters in the far West as well as elsewhere. It sometimes nests along the Columbia, though ordinarily it goes farther north. Like the teal it has its favorite feeding haunts morning and evening, and its favorite resting places, usually during the middle of the day, in the middle of some large slough far out of range. To some extent, however, its movements can be controlled by feeding.

The days grow short; wood-duck and teal are gone, except for an occasional belated one, and there is warning of the approach of what in that mild climate passes for winter. Along the ponds and sloughs the willow, the vine-maple and the cottonwood have already taken on the tints of autumn, showing a last glory before assuming their winter bareness. The air is the dream of a summer gone and an inspiration of a new season approaching; a harbinger of golden autumn and winter days to follow. The mallard will soon be here if he is coming at all. There comes a storm, or perhaps without a storm or other sign the mallards appear suddenly along the river at one or more of their favorite haunts. The hunter takes his departure for the shooting grounds and is landed at nightfall with his dog and traps, at some point on the river bank nearest the cabin. As the hunter goes along in the still foggy morning, the air is full of the noise of ducks uneasily shifting their position at his approach. There seem to be hundreds of them, and from the feeding ground they rise in the darkness and go elsewhere beyond the reach of the disturber. At this time no shooting is permitted. Presently the decoys are set and all is arranged and the hunter with his dog is in the blind allotted to him awaiting the dawn.

WHERE THE COLUMBIA MEETS THE TIDE OF THE PACIFIC.

Meanwhile all the ducks have been driven away. But as the dawn begins to show in the east there is a stir in the air, and from far down the lake is heard the "qu

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quack" of the hen mallard. Presently mark! here they come, perhaps two or three of those that left an hour or so ago. So the sport begins, the ducks continue to come, singly, in pairs or more until nine or ten o'clock when there is a lull and the shooting is over until the afternoon. The ducks have gone to their resting places, and it is best to take a walk over the meadow or pasture, along the hard hack, to stretch the limbs and give the dog a chance at the grouse or the "Denny" pheasant. The evening shooting is only a repetition of the morning, and if it has been a good day and the ducks have come in well, there should be a handsome bag to take back to the cabin. *Ten or twelve dozen would be considered a good day's sport for three or four guns. Such a day, with variations of incident and weather would fairly represent ordinary experiences along the Columbia. With the mallards will most likely come the little butter-ball, called by some the buffle-head (*Charitonetta albeola*), an excellent duck both for shooting and eating; the American golden-eye, called in that section whistle-wing (*Glancionetta clangula americana*) and its kind, Barrow's golden-eye (*Glancionetta islandica*) both at times in considerable numbers, and taxing the skill of the most expert shot to bring them down. They are extremely wary and fly with great swiftness, and it is only by chance and the hunter well concealed that they will come within range. But there is more satisfaction in knocking over one of these little fowl as he comes like a rocket down wind, than in bagging a dozen mallards. Their flesh is not considered good eating because it is apt to be fishy. With the mallards, or about the same time, come also the pintail or sprig (*Dafila acuta*) not in flocks but generally singly or in small numbers; and the spoon-bill, or shoveller (*Spatula clypeata*), the latter not to be confused with the sea and bay variety called greater scaup duck or broad-bill, which is also seen occasionally. In size and in the shape of the bill, but not otherwise do these two varieties resemble each other. Black ducks, so common on the Atlantic coast, are not found along the Columbia, and the famous redhead is very rare. Nearly every other variety of duck known to North America, however, is at times seen on the Pacific coast.

While it is unfortunately true that duck shooting is not what it formerly was in the Pacific northwest, yet it is so much better than in most parts of the country as to attract the attention of those who care for such sport. There is no reason why, with the enforcement of proper laws, and a sportsmanly spirit which does not insist on a butcher's bag, the sport should not continue as good as it is now; even improve greatly.

MT. ADAMS, WASHINGTON, FROM THE COLUMBIA ROAD.

*No wonder ducks have become scarcer on the Pacific coast with bags of such butcher size considered sportsmanly!—EDITOR.

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A "CALLED" MOOSE OF BANTALORUM BARRENS

By the late Frank H. Risteen

THE fields wore a livery of russet brown all fringed with frosty gems, and the knolls and hollows of the woodland were carpeted with purple, gold and gray. The sun was still dozing behind the river hills as the wagon came humming up the frozen street. Rifles, provisions, tent, and a pair of sleepy sportsmen being safely stowed aboard, the off horse caught sight of the ascending whip with the side of his eye, and the city ceased to be.

Over the watershed between the St. John and the Nashwaak the team jogged through the chill morning fog so merrily that Colin's automatic "Get on!" seemed quite superfluous. At the height of land the peaceful valley of the Nashwaak unrolled itself before us, a picture of bounteous intervales, dotted with the clean white dwellings of the farmers and intersected by the river that wound to the south like a belt of fretted silver.

Crossing the river by the covered bridge at the mouth of the Tay, the rugged slope of Zion's Hill faced us, as long and as obstinate as ever. Surmounting this, a level drive of seven miles over a plateau shorn by ancient forest fires, and through a shaggy backwoods settlement, brought us at last to a cozy roadside house nestling in the shadow of the trees. Here lived our guide, Arthur Evans, a tall, spare specimen of manhood, to whom every acre of the Cains River wilderness was familiar, and who had trapped his first bear when eight years old.

"Hello, Professor, how's the courage?"

The guide's response was cheerless, as of one to whom the world was wearisome. He was proverbially "down on his luck," and was now mourning the loss of a pet bear. He had captured the animal when a cub, and trained it to follow him through the woods like a dog on his hunting expeditions. The cub bore the appropriate name of Jonah.

Our luggage was hauled from the settlement to the hunting grounds in a heavy farm wagon driven by Dick Evans, a younger brother of the guide. Harry and I shouldered our rifles and walked ahead of the team the six long miles of portage road that wandered over the ridges and through the swamps to the banks of Cains River. As the team drew up at the Meadows camp Harry's dome of thought was seen to be corrugated.

"Do you mean to tell me," he demanded, "that this road is only six miles long?"

"Sure's you're born," said Dick. "She's measured."

"Who measured it?"

"Oh," said Dick, puffing his pipe reflectively, "all hands took a turn at it, I guess. We had lots of dogs in them days huntin' moose. We used to drive a dog to death and then call it a mile."

At this point team and passengers plunged suddenly over the bank and proceeded calmly down the bed of the river. Did I say calmly? It seems to me the woods must be quaking yet from the remorseless din we made roaring and grinding over the rocks and shallows. The worst of it was that along the stream were signs of moose in plenty—hoof-marks on the sandy bars—half-eaten lily roots stranded on the shoals—alders trodden and twisted by obstreperous old bulls—paths worn deep in the fibrous turf where the animals came to the water. There were two or three considerable stretches of dead-water that offered ideal sites for calling moose. Too late we regretted the adoption of so noisy a mode of transit as the wagon. A birch canoe shod with cedar strips would have floated like a duck in any of these ponds, and the carries over intervening shoals would have been a trifling matter. As it was, the rattle and bang of the wagon and the ring of the horses' feet upon the flinty rocks and sunken logs in our devious pilgrimage seemed almost certain to alarm beyond hope of recall any game that might be located near the stream.

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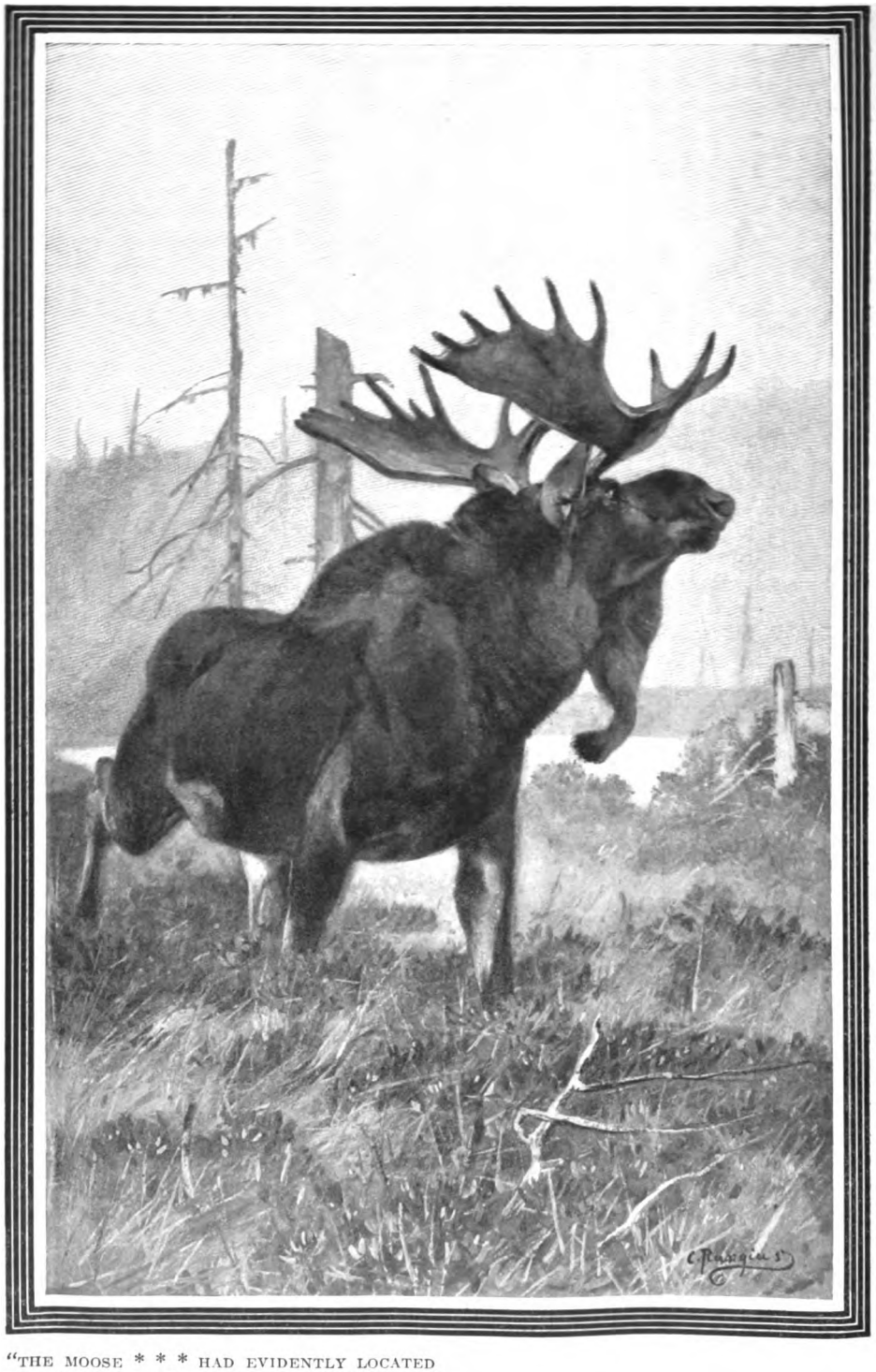

"THE MOOSE * * * HAD EVIDENTLY LOCATED THE CALL TO THE FRACTION OF A YARD."

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The moose, however, is not readily disturbed by loud, distant noises; it is the snapping of a twig close at hand that puts him on his mettle.

Our camping ground at the mouth of Otter brook, seven miles from the Meadows, was reached when the sun was still half an hour high. Warned by a previous experience, we did not pitch our tent on the open bank where the fire would be exposed to the rake of the wind, but selected a little mossy glade a few rods in from the river where a grove of small pines offered a convenient shelter.

While Harry was overhauling the "wangan" box, it was ascertained that the Professor had almost forgotten to bring the cooking kit. The baker was minus the bread pan, and kettle and frying-pan had both been left behind. Two tin plates were brought to light, however, and when these were reinforced by a number of "cosseaus" stripped from a white birch tree, and a superannuated coffee can picked up on the bank of the stream, the outfit seemed quite luxurious.

A supper such as only hungry men can eat in the woods being stowed away, a trench dug around the tent to keep out the water in case of rain, the heavy camp blankets smoothly spread upon our couch of boughs, a huge fire built that sent the sparks soaring in myriads among the pines —we loaded our pipes and discussed the plan of campaign for the morrow.

The Professor was pessimistic; his thought far away with the late lamented Jonah. However, the evidence disclosed that there were hardwood ridges to the north as well as to the south of us where moose sign was plentiful; there were barrens up Otter brook where the latter flattened out into swampy ponds, and across the river, about a mile away, was the big Bantalorum Barren, a famous place for moose in the early autumn and for caribou in early winter. It was decided to try the barrens up the brook the first thing in the morning.

As we lay on our bed of balsam boughs with feet to the fire and pipes aglow, bright visions of the chase came and went in the back-log's cheerful blaze, and soon the wizard spell of the drowsy wilderness hushed us all to silence. When we turned in finally for the night the wind had sighed itself to rest, and only the mink chattering on the shore over some refuse of the larder, and an owl hooting dolefully on the fire-ruined slope across the stream, bore testimony to the miracle of forest life.

"Hi boys, turn out! Taters!" was the salute from Dick's lusty lungs that aroused us in the gray light of dawn. The horses were snorting contentedly as they munched their hay, the aged coffee can was singing over the fire, and the fragrance of ham and eggs done to a turn on the tin plates, backed up by a goodly company of potatoes roasted in the ashes, would have caused the late Epicurus to turn over in his tomb. Does the reader need to be assured that that breakfast went all right? O, for some poet who shall sing of the banquet hall of the Red Gods where desire faileth not!

There were a few moose tracks of recent date, mostly of cows and calves, in the grassy ooze that bordered the pond, and a deer track that seemed to have been made that morning. I called here for about an hour, and at first was convinced that a bull was answering on a distant ridge. For a time we could hear no repetition of the sound; then it came clearly enough and with it the shattering of our hopes. Its rhythmic quality no longer left room for debate. It was the measured stroke of an axe—producing an acoustic effect that can hardly be distinguished, under certain conditions, from the far-away answer of a moose.

On the way back to camp we surprised a pine martin in the top of a tamarack tree. The little rascal barked at us defiantly, then growing nervous and alarmed over his position, ran down the tree, boldly dropped to the ground within a yard of us and bounded off through the hard-hacks like a flash. A flock of partridges rose into the poplars near the brook, but were not molested, as we feared that the firing might disturb larger game.

The clouds broke away at noon and the air was very summer-like. After a cold lunch and a pipe at the camp, we crossed the river and started over the knoll for the Bantalorum plain. This is quite a large barren, fully two miles in length by half a mile in average width. The labor of forcing a way through the heavy underbrush made our journey thither largely a matter of perspiration and profanity. There seemed to be a breeze in the tree-tops, but none of it could be found on the level, steaming bog. Even the moose-birds that slid on noiseless wings from tree to tree

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forebore their usual cheeky chatter. For perhaps half an hour we toiled through the cloying mass and crackling stubble on the leeward side of the plain. Then, feeling hungry for breath, we sat down on a spongy mound just within the entrance of one of the many inlets or pockets that radiated into the deep woods from the main barren. The cranberries that grew here, though few and far between, helped to quench our thirst, and the gentle breeze that rippled down the pocket was quite refreshing. It was decided to postpone for a more favorable day our project of circling the main barren. Rather with a view to relieving the monotony than otherwise, I raised the horn and tried the low call, or "coaxer." The Professor, who had been standing apart surveying mournfully the lonely waste, turned as the sound died away and declared:

"By jiminy frost, there's an answer!"

I, too, thought I heard a distant grunt, but Harry was skeptical, and the Professor himself soon lapsed into doubt and gloom. We dismissed the impression as a trick of the wanton wind. Harry was leaning back against a bunch of hard-hacks in the act of filling his pipe as I picked up the horn again and tried my loudest, longest call. As the mournful blast was still eddying and echoing over heathy plain and wooded knoll a wondrous thing took place. Chaos incarnate seemed to be sportively leveling the trees, or a hook-and-ladder cart to have broken loose, in the deep woods across the pocket about one hundred and fifty yards away.

"It's a moose; it's a moose!" I exclaimed, "and I've scared him with the loud call!"

I shall know better next time, perhaps. I should have reflected that a bull moose, upon discovering the spurious call, will steal away with fox-like tread. Soon all doubts were forcibly dispelled. The crashing of limbs and hollow reverberations of tree trunks smitten by a giant force grew louder and nearer, and as we squatted down with cocked rifles two prominent yellowish objects swaying in the brush emerged from the somber spruce and firs across the pocket. They were the wide-spreading antlers of a bull moose. The tumult ceased, the horns became motionless and the moose, which had evidently located the call to the fraction of a yard, seemed to gaze directly at us as we crouched in the heather. He stood there silently, perhaps half a minute, nothing to be seen but his armed head.

"Give it to him now," urged the Professor; but I cautioned Harry not to shoot. I felt certain that after having so far exposed himself, the moose had no notion of retreating. The wisdom of waiting was soon apparent. With a snort, as of pent-up steam from his mighty lungs, the moose pressed through the brush and stepped out on the open bog, quartering down the wind. It is an axiom of woodland lore that a bull moose when advancing to the call will circle around to leeward in order to catch the scent. Our quarry was no exception to the rule. By crossing the pocket below us he would inevitably catch our wind before he reached the other side. The course he took brought him in somewhat closer range. He was now not more than seventy-five yards away. His shaggy form, as he silently plowed along with downward head, was somewhat hidden at first by a few outlying spruce and fallen stubs.

"Wait till he comes out, and then don't miss," I said to Harry, when the moose swung by the last uplifted root and his huge black body hung on the sights of the waiting rifles.

At the spiteful crack of the cordite I think the monster felt that his time had come, for he sullenly lurched ahead looking neither to right nor left, and then fell heavily.

* * *

When Dick, the comedian, came with the team next day, and gazed on the prostrate form, he impressively remarked:

"By jinny, boys, it was a close call."

"How is that?"

"Why, because the call was so close!"

I think Dick was as proud of having unloaded that mangy joke upon us as if he had slain the moose himself. The Professor made no reply. His weary smile was of one who strove for duty's sake to endure the chastening rod.

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TRACKING KANGAROO IN QUEENSLAND

By George Styles

WEST from Brisbane 350 miles, or rather more than half way between that city and the eastern boundary of South Australia, runs the river known by the native name Warrego.

Some few years ago, and before there was a railway anywhere within 300 miles of this stream, when the only means of travel was the squatter's horse, or the bullock dray which brought the provisions from the capital over the long and often deadly track for those patient beasts, I took the position of what was known then as a "colonial experienced" hand.

Employees of this class were usually young fellows who were sent out to sheep or cattle stations, either because they were expensive luxuries to their parents in Sydney, Brisbane, Adelaide or some other commercial center, or else because they wanted to serve a kind of apprenticeship to the business of the squatter.

How it was in my case is of no consequence. I know that I found myself at the Warrego on a splendid station carrying 75,000 sheep, and it was a part of my duties to carry the weekly rations to the different shepherds' huts, of which there were nine.

Blacks were numerous in those days, many of them hardly half civilized, and they roamed over the Mackay plains on the west and northeast as far as the Expedition range.

They are all gone now; a full-blooded native is much more rare now than a white man was then, and white men hardly averaged twelve in fifty miles in any direction.

Being of an active, sport-loving disposition, I found the keenest satisfaction in the boomerang and spear-throwing feats of the natives, and in their hunts.

The kangaroo, the wallaby, the emu, the native bear and the wildcat, were our favorite game. The kangaroo then had a range practically untrammelled by any of civilization's barriers. It was my good fortune to share in many a hunt in which I was the only white man, and when the only weapons were the spear and the formidable waddy, or native club. Old Boodooma was a chief of one of the small tribes, and a hunter the fame of whose skill in spear throwing; and the apparently unerring instinct with which he located the game, was known for miles around. Of all trackers in the world the Australian is peerless.

Often have I seen Boodooma, while leading a party of six natives with myself, tramping the trackless bush, suddenly halt the party, and in a moment I would hear the measured hop of the kangaroo in the scrub, as his great tail-lever at each leap beat the dry herbage. This halt was the signal for the sending out of the scouts. Not a man stirred until the leader ordered him to do so. Then usually, four of them moved off in such directions that they formed a square with the kangaroo in the center. So stealthily did they move that it was difficult for me to hear them at a distance of ten paces. I was never able to find out in what way Boodooma assigned to each man, what I may term his goal, on reaching which the attack was to be made. The bush or scrub was often too dense to see far enough ahead to pick out any particular spot for this purpose. Possibly it was a native secret, and Boodooma loved to be wiser than a white man when he could be so.

The kangaroo is a timid animal, and a breaking twig will startle him. Hence as soon as the men started, they were on the alert to notice two things: first, whether the animal got beyond their lines so to speak, and secondly, that their actions should be noiseless and out of the kangaroo's sight. If the kangaroo is not disturbed he is a leisurely feeder.

Each man carried from three to five spears, with heads made of the terrible claw of the kangaroo's hind feet, the most formidable weapon the animal has. Gradually the distance between the men was narrowed, so that each was within spear distance of the others. Boodooma and myself were hidden behind an eucalyptus tree, where we stood for half an hour without speaking. Then the game, a female and her mate, a splendid forester or boomer, as the largest male kangaroos are there

called, came in sight. The hunters' cunning had outwitted the instinct of the brute, so that all unconscious of danger the pair were within thirty paces. They cropped the scanty herbage, and occasionally the male drew himself up to his full height, fully five feet ten, and drew down with his short fore legs, the tender ends of the branches. It was while he was at this disadvantage, that one of the blacks threw a spear. Each hunter had evidently seen the weapon as it flew, for six others followed almost simultaneously, and both animals passed wounded within five feet of our tree.

Boodooma's skilful aim threw two others, and the harsh yell of triumph of the blacks broke the silence of the bush. Pursuit followed, and both were found so near dead, half a mile distant, that it was not thought necessary to use the waddy.

The white man's method of hunting the kangaroo is very different. He hunts with dogs trained for the purpose. The dogs are a cross, in which the deerhound is prominent. It needs this trait for speed, but other blood for strength. In other words, the kangaroo dog must have a judicious mixture of speed and strength. The best kangaroo dogs I have known were smooth coated, weighing perhaps sixty to eighty pounds.

The native hunt is of course tame as compared with the chase, and in it the danger is reduced to a minimum, as compared with horsemen and dogs, rushing through the scrub and bush, and risking collisions with trees. The hunter is following an animal which, if a male, often covers forty feet at a bound, and for a time it gains rapidly on the dogs. But it seldom escapes. It is a fierce fighter, and to be in "at the death" is, more likely than not, to include death to more than one dog.

I remember one such case when we were out with three dogs and had followed a kangaroo for perhaps half an hour, bringing it to bay in a branch of the Warrego, which ended in a morass. At this point the water was but little over a foot deep and when we heard the sounds of the dogs, indicating that the game was at bay, we drew rein, for the run was a dangerous one. Just before reaching the river, we had to cross a little plain of a few acres in breadth, extending down the stream for a couple of miles. We had hardly entered the open, when my companion cried, "there goes Jack clawed to death."

The kangaroo had backed up against the opposite bank, which was hardly higher than his head, and as Jack; whom previous contests ought to have made more cautious, rushed for its throat, the terrible hind claw nearly disembowelled him. This frightened the other dogs, and no amount of coaxing or threatening could induce them to do more than stand at a respectful distance and yelp.

Neither of us cared to venture within reach of that claw. Firearms we had none. So I dismounted and crossed the stream, intending to attack him from the top of the bank. Before I could do this, however, the kangaroo cleared the water at one bound, and was off down the narrow plain, looking back every few seconds, as they usually do when moving fast. Our two dogs were tired out, and the boomer escaped.

There is a smaller species of the kangaroo called the wallaby, which is not as much hunted as the larger kind, though it can give a smart chase.

Emu hunting is a sport that once was common in the far interior of Australia, and a royal game it was. So far as my experience is concerned, "droves of emus" are a fictitious marvel. They are usually found in pairs, which would be expected from the monogamous nature of the bird. It prefers the plains and light timbered country to the dense bush.

The eastern spur of Stoke's range, one hundred miles west of our station, was one of our favorite hunting grounds, and Boodooma was our main henchman in our expeditions after the emu, which generally extended over a week. He followed the native method of hunting the bird with spears, but the white man who chased them with horses and dogs, bagged the most game. This Australian ostrich, as it is sometimes called, can run with surprising speed, but tires after a run of a few miles. The dogs are therefore trained to let the bird wind itself, and when it is reached, to keep out of the vicious backward and sideways kick. It can break a man's leg with that same kick, although such accidents seldom happen, because the emu hunter, whether white or black, knows the danger. It sometimes happens, though. Of one such result I was a witness. It was the last day of our camp in the range, and

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Bulla Bulla, a native lad, caught sight of a male in the myall bush skirting the plain, on the edge of which we were camped. Two dogs were soon in chase, followed by Bulla and myself on horseback. After a run of perhaps a couple of miles, the bird was nearly exhausted, and one of the dogs leaped for its throat. The bird turned a little and the dog's bite was fastened on the rudimentary wing. The emu stopped for the final struggle. The lad dismounted, intending to strike it with his waddy, but fearful of hitting the dog, he waited a moment and the bird's leg shot out. A fracture of Bulla's right shin made him drop his club and howl with pain, but the dogs secured the game, which proved to weigh about 130 pounds. They are getting scarce now. During a foot journey of over 800 miles I did not see a dozen.

THE PRIDE OF THE MEADOWTHORPE HUNT

By Alfred Stoddart

BOADICEA, Major Barclay's flea-bitten gray mare, was the best-known and best-beloved four-legged member of the Meadowthorpe Hunt. Verses had been made about her, songs had been sung about her, and her picture, painted by a celebrated artist, hung in a conspicuous place in the Meadowthorpe Hunt Club. Many and varied were the great deeds she had done, great races won, great leaps taken, great runs finished. It was Boadicea who had once taken the park gates at Halliday Hall, carrying Major Barclay's 165 pounds safely over six feet of iron palings; it was she who had jumped the toll gate on the Meadowthorpe pike one dark night in a mad race during which two other good horses were ruined and one man lamed for life; it was she whom Major Barclay had jumped over a stack of bayoneted rifles during an encampment of militia; it was she who saved the honor of the Hunt when everyone else failed—Boadicea—the pride of the Meadowthorpe "first flight," and this was how it happened.

The Cedarbrook Hunt was not very far from Meadowthorpe—that is as far as actual distance was concerned. But in prestige and "sporting blood" the Cedarbrook crowd was considerably removed from the Meadowthorpe set. Some pretty good fellows belonged to the Cedarbrook Hunt Club, and they had some good horses too. Moreover, they showed excellent sport on occasions. But it was not Meadowthorpe. When you have said that, you have expressed it about as well as the thing can be expressed. The Meadowthorpe hard riders are perfectly willing to admit that there are other places in the world where very decent fox hunting may be had—such as Melton or Market Harboro'—don't you remember poor old Whyte Melville's Jack Sawyer?—or County Meath, or even Cedarbrook. But none of them is Meadowthorpe.

It chanced, however, one wintry day, that the Meadowthorpe hounds having chased their fox over the border of the Cedarbrook's country, fell in with the latter's hounds, apparently hot on the scent of the very same fox. It transpired that there had been two foxes in the beginning,but they had melted into one. Therefore the two packs of hounds followed suit and the Meadowthorpe and Cedarbrook club members found themselves riding side by side.

That was a great run. Mile after mile was reeled off without a turn or a twist. What a game old fellow that fox must have been!

He escaped with his brush, as he well deserved to do, but when the thing came to be talked over a curious fact was observed. Maudsley of the Cedarbrooks was up with the hounds when the fox went to earth, a yard or two in advance of the pack's yawning jaws. Then came another and still another of the Cedarbrook crowd—Hawkins, their M. F. H.; Battersby, and Murphy, their huntsman.

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"Why, confound it, old chap," said Hawkins that night to Ralph Goring at the latter's place, Oak Lodge, where a small but select stag dinner had just been enjoyed.

"Confound it—I say—you Meadowthorpe people weren't one, two, three. You may have a lot of good horses over here—I don't say they're not good jumpers. But I like a bit of speed in mine, thank you. We've a lot of good goers with our hounds—if I do say it myself."

"Well," said Ralph, "I don't know what happened to us to-day, but we've got some speed, too, and just to show you that we can do something, what do you say to a point-to-point between the two clubs? You pick your horse and we'll pick ours."

"I guess I can safely take you up on that," returned Hawkins. "Let's see, next Thursday's Christmas. What do you say to Christmas morning?"

"All right. Couldn't be a better day. And how does a course from the White Horse Inn to Brown's Crossing strike you? There's the church steeple there. It will be a good thing to steer for. The distance is a trifle over four miles."

"Done," said Hawkins, "and I will put up one share toward a handsome mug for the winner if you Meadowthorpe fellows will chip in."

"Don't let that worry you," said Ralph.

And so it was arranged finally. A real point-to-point race—a good stiff distance over a good stiff country! And that night, after the Cedarbrook men had departed, the three or four Meadowthorpe members left discussed the matter solemnly. For unquestionably they had been ridden away from that day by the Cedarbrook crowd and they were sorely humiliated.

It was positively necessary that Meadowthorpe should win this point-to-point. And it was finally decided after due deliberation over many fresh pipes and glasses of hot Scotch, that Boadicea should be the horse upon which they would pin their hopes.

Major Barclay had not been out that day, but had turned up in time for dinner and he willingly assented to Boadicea's running for the honor of the club.

"But when it comes to riding a four-mile steeplechase over some of the stiffest country a horse ever went, count me out. That's all. You'll have to put a younger man up," he said.

It was ordered therefore, by Bradbury, the M. F. H., whose word was law in such matters, that Dick Middleton should ride. Middleton was engaged to Beatrice Halliday, who rode to hounds as straight as ever a woman dared ride, and she told him next day that he might consider their engagement off if he lost.

Under the circumstances, it was not strange that Dick Middleton should hasten anxiously to his window when he tumbled out of bed Christmas morning. It was a glorious day, clear and cold, though not freezing—the kind of a Christmas which the superstitious say makes a fat graveyard—but an ideal day for a steeplechase.

The great event was set for eleven o'clock and at twelve there was to be a great breakfast at the club, to which all Meadowthorpe and most of Cedarbrook was invited.

Middleton was still splashing in his tub when Major Barclay was announced. It was at Oak Lodge, Ralph Goring's place, where Middleton usually stayed when he was at Meadowthorpe.

"What's the matter, Barclay?" said Middleton a few minutes later, having hastily gotten into his clothes. "Has the mare gone wrong?"

"Not she. She's as fit as a fiddle, but you'll have your work cut out for you. They are to start Blazeaway against us."

Now Blazeaway was a famous horse and had won a dozen big steeplechases, while Boadicea had never started on any course but Meadowthorpe. Middleton whistled softly, but was not dismayed.

"You say the mare's all right," he said, "and I'm feeling pretty fit myself. We will give 'em a run for their money."

Quite a lot of people were gathered at the White Horse Inn to witness the start, when Middleton and Ralph Goring drove up an hour later. Boadicea and Blazeaway were both in the stableyard, being made ready for their contest. Fred Maudsley of the Cedarbrook club was to ride Blazeaway. Maudsley had once admired Beatrice Halliday very much, a fact which might serve to increase his triumph should he win from Dick Middleton.

When the two horses were brought out ready for the race, they certainly were a sporty-looking pair. Boadicea was long, rather low on her legs and very rakish-looking—the type of horse to be seen in one of Alken's plates—while Blazeaway was a big handsome chestnut with magnifi-

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cent quarters and shoulders. He looked a steeplechaser all over.

Beatrice Halliday, who had ridden over on her hack to wish Middleton good luck, had cantered off by a back lane toward the finishing point, and Ralph Goring stood ready to start the horses. As they came along the road at a slow canter, he dropped his handkerchief with a quick motion and called "go," and they were off.

It was a straight line by the road for about a furlong, then Boadicea popped over a low fence, closely followed by Blazeaway, and started across country. On they flew together at an easy gallop, both men sitting back in their saddles. Field after field was crossed and fence after fence was flung behind. As yet they were only riding at a fast hunting pace, but even this was beginning to tell on Blazeaway, good horse though he was. For the fences were all stout and high and the country to be crossed was hilly. Suddenly Blazeaway's forefeet struck a stiff post-and-rail fence and he and his rider rolled over together into the next field. Dick Middleton looking back saw that neither was hurt. Blazeaway struggled to his feet, and Maudsley mounted him and galloped on as quickly as possible. But Boadicea now led by the length of a good-sized field.

Middleton took a hedge leading into a quiet lane and here to his surprise he met Beatrice, cantering briskly along. The lane was lined upon either side by the hedge and they were quite alone. Middleton thought the race already won, so he cantered along with Beatrice. She was one of those girls who look their best in a riding habit and she was particularly fetching to-day. Small wonder, therefore, if Middleton forgot for the time he was riding a race and ranged his horse close enough to hers to snatch a kiss.

But it was dearly bought. Just at that moment the hedge parted in front of them and Blazeaway landed in the lane going strong and with fully six lengths start of Boadicea. It was in vain that Middleton put the spurs to the gray mare. He could not seem to get near the chestnut. Over a stone wall and up a steep incline they went; then down again, taking a stiff water jump in the valley. There was only a mile more now and both men were riding the best they knew. Blazeaway seemed to have [illegible] on life; but Boadicea was not yet beaten. The blood that flowed in the gray mare's veins was the best the stud-book can boast; and blood will tell.

Slowly—very slowly—the gap between the two horses was decreasing. Boadicea gained a trifle at every fence. In half a mile she had crept within two lengths of the chestnut and there were only three more fences to jump. But Maudsley was pushing his horse to the last bit of speed there was in him and again he seemed to be drawing away. He cleared a stiff four-foot fence with the greatest ease and both horses were now approaching the last two jumps, the fences on either side of a lane. The lane was a narrow one—not more than ten feet wide—and Maudsley was checking Blazeaway's pace preparatory to jumping in and out of it. Middleton, however, only touched the gray mare lightly with his spur, took her firmly by the head and sent her on. She went at the lane at top speed.

Out of the corner of his eye Maudsley could see what Middleton was doing and held his breath. He was going to take it all in one jump.

"It's my only chance," said Middleton to himself. The horses reached the lane together and Blazeaway doubled in and out of it very cleverly indeed. But Boadicea, with a supreme effort which earned for her immortality, flew like a bird over the lane, fences and all, and never lost an inch. She was off like a shot before Blazeaway popped over the second fence.

It was a close thing from that point to the finish, but Boadicea won by a good length in the end, and later in the day when the breakfast at the clubhouse was at its merriest, a flea-bitten gray mare was led into the room and made the circuit of the table. She was caressed by the ladies and given sugar without limit. They made a garland of flowers and hung it about her neck and it was then and there decided to have her picture painted for the clubhouse.

But when Dick Middleton, who sat next to Beatrice Halliday, asked her where his share of praise came in she turned to him scornfully:

"You don't deserve any. You almost threw the race away," she said.

"It would have been worth it—anyhow," he answered unblushingly.

For which diplomatic sentiment he was rewarded later on—at no cost whatever.

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AN EARLY MORNING HUNT FOR BLACK-TAIL DEER

By Clarence A. Lyman

WE slept that night as we ever do in the hills, with the front of the tent wide open, so that from my pillow, the side of a saddle, I could watch the Great Dipper do its slow somersault around the North Star. When the camp-fire died the night before, and we went to bed, the Dipper was lying along the tops of the mountains, brimming full. It is easier to watch this great hand in the astronomical clock than to light unwilling matches from time to time in the night and examine a watch; and I knew that when the constellation had nearly reversed itself, it would be time to start moving.

A man in camp sleeps sweetly, yet lightly. A dozen times through the dark hours the distant sharp bark of a fox, the rustle of a leaf, the deep sigh of a satiated and sleepy horse on a picket rope, the cracking of a coal in the embers of the camp-fire, the call of a night bird, or the snap of a twig under the tread of some one of the animals of our cavalcade, called me with a gentle thoroughness from slumber. Each time it seemed as though the position of the encircling attendants of the North Star had changed by only a slight angle; and each time I sank instantly again into the perfumed rest that comes from a bed of balsam boughs after a hard day's work.

The hush that comes over all nature just before the dawn was near being my undoing after all. The Dipper seemed to have made a great sudden sweep and was dangerously far over when my eyes opened again. The canvas was throbbing with the pulse of the morning breeze, but the eastern was darker than the western sky, where hovered a faint glow. It took an effort of will to get out into the cold air, but necessity compelled haste and I scrambled as gently as I could over the dewy coverlet, hurriedly put on the few clothes I had taken off the night before—dressing and undressing are mutually short operations in a hastily made camp—found my damp and clammy shoes, raked together the coals in the ashes, fanned a flame, boiled coffee and munched a hasty breakfast of bread and some cold trout. My partner, chum, helpmate never stirred. It is wonderful how a trustful woman will sleep in the wilderness, safe in the superstition that he who sleeps beside her is competent to meet danger which may arise.

I dropped half a dozen cartridges into my pocket, together with a couple of biscuit in case the chase should be unduly long, shouldered the heavy rifle and strode out through the high grass, which was so beaded with dew that walking was like wading an ice-cold stream. The horses were standing on wide-spread legs, heads near the ground, asleep, while the burros, weary with the long pull with the heavy packs of the day before, were huddled together, lying on the ground.

The morning star was at its brightest as I started across the valley, but by the time I had picked a splashing path across the current of the little river and got fairly started up the trail, it was paling. Little flecks of purple cloud began to appear above the sun's approaching glow, as though they had been newly created. The range to the west began to lift its rugged ascents into view in a purple radiance. The eastern hills grew from shapeless masses of gloom into rounded eminences with dainty fringes of aspens and slender minarets of spruces against the faintly glowing sky. I wished I had started half an hour earlier, and quickened my pace a little.

In the growing twilight I could see a furry skunk in his sleek coat of jet black and snowy white, treading the clumps of bunch-grass, picking up the benumbed insects before the sun's heat might give them the vitality to escape. In the trail ahead of me a fox trotted. I was conscious of the faint presence of his scent but did not place it until I saw the flash of his fur above the grass. He knew I was following, but knew too that he was safest down in that sinuous passage between high walls of grass and flowers, on whose smooth surface he could make a far safer, swifter flight than over the rough ground to either side.

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A mile or so above camp I left the trail and crossed the stream again, getting my feet no wetter in wading, but feeling the icy chill pervade the water in my shoes which my feet had warmed in the comparative dryness of the beaten track. Close to the rippling surface a colder breath moved and the scrubby willows had a coating of white frost. I brushed a furry moth from a twig in passing but it was too cold for more than one very feeble flutter. It fell wide-stretched on the water and as the current swept it into a quiet eddy it disappeared so quietly that one might suppose it had sunk of its own weight. I marked the spot where lay a trout, so big that its mouth could take in an insect of that size without a splash, as a good place to drop a feathered imitation when I carried my rod that way.

There was no mistake that it was very light. My eyes had been growing accustomed to the dimness, meeting the dawn half way, but the first glow of the rising sun was just striking the tops of the higher hill. The sky was a turquoise blue all across the dome. The clouds which had been purple, had faded to lavender, flamed with a tint of orange and were now melting away in yellow fleeces. It would soon be time when all sensible deer would be deep in the thickest of the green timber, where it would be all but impossible to come upon one of them unawares. Already the burros, far down the valley where camp lay, were up and moving stiffly down to get a drink at the river.

The southern hill before me was one I had marked the year before as a likely place for deer. It rose in smooth slopes and narrow benches a thousand feet or so, fringed on the top with the edge of the deep thick forest of spruces which ran back on the plateau beyond. The ascending surface had spruce and aspen groves lying on it in long streamers, divided by half a dozen open grassy glades, each with a tiny rill gurgling down the center, coming from the banks of snow which still lay protected by the dense shade of the crown of spruces. The streams were fringed with the succulent marsh herbs which deer and elk most fancy as dessert after filling up on vines and tender boughs.

It does not pay to hasten or to get out of breath when hunting deer, so I climbed very, very slowly upward, keeping in the shelter of the bushy young aspen that fringed the bigger trees at the edge of one of the ascending glades. At each step, as I placed my foot to avoid any crackling twig, I looked all around and listened for any sound of game. The simulation of the color of the early coat of the deer to the dry bunches of grass is so close that in the imperfect light it was well to study closely each outline, else some proud stag might bear his coveted burden of venison out of range at a bound, before my eyes had seen the slender legs and gracefully borne head.

There were plenty of tracks in the mellow earth, some almost obliterated by two or three successive dews, and some apparently as fresh as though the cushioned hoof had just been lifted from them. In spite of all my caution, a crack of twigs and stamp of hoofs off to the right indicated that an alarm had reached eyes or ears or nostrils of some deer, but I sat still and listened to the beating of my heart until apparently it decided that its suspicions did not justify precipitate flight, for though it went on, it was in a noiseless walk. From tree to tree I edged in that direction. I found the fresh tracks, evidently a buck of good size, and I followed carefully on a slant up the hill. I saw something moving ahead of me, and was ready to shoot but it came fearlessly down toward me, evidently not seeing its danger. A doe with her two fawns was working down to a safe shelter in the willow tangle along the river. I did not want to turn them back in the direction in which the buck had gone, so I crouched behind a bush to let them pass. Only a pot-hunter fails to respect femininity and infancy in hunting deer. The mother was pushing along with all the ungracefulness of her kind, neck out, ears back. One fawn wanted to stop for refreshments and was pushing in front of her like a calf at milking time. The other spotted pet was intent on play, bounding about in extravagant semicircles. His erratic course brought him directly upon me, and he stopped suddenly with legs braced at wide angles, so close that I felt the breath of his startled snort. His ears were opened wide, and his dewy nostrils quivered as he drew in a scent of whose danger he had yet to learn. His great soft eyes looked full into mine for a moment, and I could almost have reached out and touched him. Then he remembered his mother, who had passed on out of sight, gave a mew-like expostulating

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"ONE OF THOSE PRETTY, PRETTY THINGS—HOW COULD YOU DO IT?"

bleat, bounded a couple of yards to one side, and gamboled on in pursuit.

The shadow of my hill had by this time crawled down to the opposite slope in the valley and the sun was shining full through the tops of the trees. A raven cawed and flapped lazily across the valley, high overhead on a tour of investigation. His keen eye had marked the murderous weapon I carried, and he circled above the mountain and lighted in a tall dead spruce to await the outcome of the hunt. The buck on whose track I was following was evidently intent on reaching shelter. He had been in no haste, cropping the herbage as he went along, but the determination with which the tracks forced themselves up the hill meant that he had a mind for the safe protection of the growing green timber [illegible]st. I must make haste to head him off as it would be fatal to hurry directly behind him, I crossed over into the next glade and then pushed steadily up the mountain toward the summit. Just at the very brow was a continuous grassy bluff over which any animal seeking the upper shelter must pass; and on this I threw myself down. I had no breath, and could not have aimed my rifle to save my life, so I devoted my whole strength and attention for a few moments to regaining some steadiness of respiration. In the valley way below three tiny spots of buff, the deer family I had intercepted, were crossing through the grass to a wide bed of willows that marked the filled-in site of an old beaver dam. Down at camp everything was still, and the absence of smoke told that the sleeper was still dormant. The raven cawed impatiently.

I became suddenly conscious that there was a deer in the trees off to the right and a

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little below me. How long he had been there I do not know, but I am certain that my eye had rested on the spot and its surroundings a moment before and saw nothing. I slipped down off the grass and into the trees and worked very cautiously in that direction. A shot downhill is so deceptive that hitting is pure luck, and I sought a place on the same level.

A stately buck he was, stopping for a final lunch on the tender shoots of a clump of vetch vines on the edge of the stream. His black nostrils were wet and shone with the high polish of new patent leather. His form was well rounded, his coat was smooth and glossy, and his spreading antlers full grown. In the motions of his eating, every muscle moved and quivered. The sight was so superb that it almost precluded murder, and I sat with rifle half raised and watched for fully a minute. His nostrils caught a breath of hostile odor, and he flung his head high, poised for flight, but not quite sure which way the danger lay. He remembered the alarm downhill and turned to look that way. The white bead of the front sight rested against his curving neck, just back of the head, and the white bead rested in turn on the lower rim of the circle of the hind peep-sight. The sight was perfect and the finger crooked against the trigger almost without conscious volition.

A 45-70 bullet in the cervical vertebræ snuffs out all power of motion as though it were the flame of a candle. There was never a struggle, just a sudden collapse, and the beautiful animal lay in limp confusion sprinkling blood upon the verdure where he had just been feeding. The hunter's work was done and what remained was mere butchery. The rough surgery of the hunting knife must let out the blood in a foaming torrent before the heart ceases beating, and with the same flow release the remnant of life which still showed dimly in staring eyes. Then must follow the smeary task of dressing the carcass, which had been a deer and was now venison. The raven flew from his perch and brushed through the trees above. It seemed as though the sound of the shot had summoned all the smaller predatory birds, the magpies and gray-jays, and I could hear their harsh cries approaching through the trees, as they fluttered closer and closer in short flights. Before my gory task was done they were busy, without fear of me, picking the dainty flecks of suet from the entrails, while two or three other ravens had joined the pioneer and were scolding from the tops of the trees because I was so slow in completing my work and leaving them a clear field. I hung the venison in a tree, protecting the exposed meat with boughs, and washed hands and arms in the waters of the rill. Then I struck out for camp. Under the tall grass red-leaved plants hugged the ground. Drops of dew had fallen on some of them, making the homeward path seem through a trail of fresh blood. The sun shone down on the valley hot and ungentle. It seemed as though the whirring grasshoppers unduly extended their flights to escape my presence. A startled grouse, breakfasting in a bear-berry bush, instead of rising to the nearest tree, whirred away clear across to the foot of the mountain, where it flapped deep into a tree as though murder was behind it. As I came up into camp the horses scented the blood and snorted as if I were some strange wild animal and moved uneasily on their picket-ropes.

She had just awakened and was looking with sleepy eyes out into the sunny world.

"Fresh meat," I cried.

"Oh, did you get a deer? I didn't know you were gone until just before I heard you shoot." Her eager interest flamed up in question about the events of the chase, and then, in reverie—

"One of those pretty, pretty things! How could you do it."

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THE STORY OF THE TRAPPER

I. THE TAKING OF THE BEAVER

By A. C. Laut

I.

ALL summer long he had hung about the fur company trading posts waiting for the signs.

And now the signs had come.

Foliage crimson to the touch of night-frosts. Crisp autumn days, spicy with the smell of nuts and dead leaves. Birds flying away southward, leaving the woods silent as the snow-padded surface of a frozen pond. Hoar-frost heavier every morning; and thin ice edged round stagnant pools like layers of mica.

Then he knew it was time to go. And through the northern forest moved a new presence—the Trapper.

Of the tawdry, flash clothing, in which popular fancy is wont to dress him he has none. Bright colors would be a danger signal to game. If his costume has any color, it is a waist belt or neck scarf, a toque or bright handkerchief round his head to keep distant hunters from mistaking him for a moose. For the rest, his clothes are as ragged as any old, weather-worn garments. Sleeping on balsam boughs or cooking over a smoky fire will reduce the newness of blanket coat and buckskin jacket to the dun shades of the grizzled forest. A few days in the open and the Trapper has the complexion of a bronzed tree trunk. Like the other wild creatures, this foster-child of the forest gradually takes on the appearance and habits of woodland life. Nature protects the ermine by turning his russet coat of the grass season to spotless white for mid-winter—except the jet tail-tip left to lure hungry enemies and thus, perhaps, to prevent the little stoat degenerating into a sloth. And the forest looks after her foster-child by transforming the smartest suit that ever stepped out of a clothier's band-box to the dull tints of winter woods.

This is the seasoning of the man for the work. But the Trapper's training does not stop here.

When the birds have gone south the silence of a winter forest on a windless day becomes tense enough to be snapped by either a man's breathing or the breaking of a very small twig; and the Trapper acquires a habit of moving through the brush with noiseless stealth. He must learn to see better than the caribou can hear or the wolf smell; which means, that in keenness and accuracy his sight outdistances the average field glass. Then animals have a trick of deceiving the enemy into mistaking them for inanimate things by suddenly standing stock still, unflinching as stone, in closest peril; and to match himself against them the Trapper must also get the knack of instantaneously becoming a statue, though he feel the clutch of bruin's five-inch claws—which is an old stratagem among Indian hunters of feigning death till the bear leaves them for dead.

And these things are only the *a b c* of the Trapper's woodcraft.

One of the best hunters in America confessed that the longer he trapped the more he thought every animal different enough from the fellows of its kind to be a species by itself. Each day was a fresh page in the book of forest lore.

It is in the month of May-goosey-geezee, the Ojibways' trout month, corresponding to the late October and early November of the white man—that the Trapper sets out through the illimitable stretches of the forest land south of Hudson's Bay, between Labrador and the Great Lakes. His birch canoe has been made during the summer. Now, splits and seams, where the bark crinkles at the gunwale, must be filled with rosin and pitch. A light sled, with only runners and cross frame, is made to haul the canoe over still water, where the ice first forms. Sled, provisions, blanket and fish-net are put in the canoe, not forgetting the most important part of his kit—the Trapper's tools. Whether he hunts from point to point all winter, traveling light and taking nothing but absolute necessaries, or builds a central lodge, where he leaves full store and radiates out to the hunting grounds, at least four things must be in his tool-bag: a woodman's axe; a gimlet to bore holes in his snow-shoe frame; a crooked knife—not the sheathed dagger of fiction but a blade crooked hook-shape,

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somewhat like a farrier's knife, at one end—to smooth without splintering, as a carpenter's plane; and a small chisel to use on the snow-shoe frames and wooden contrivances that stretch the pelts. If accompanied by a boy, who carries half the pack, the hunter may take more tools; but the old Trapper prefers to travel light. Firearms, ammunition, a common hunting knife, steel traps, a cotton-factory tepee, a large sheet of canvas, locally known as abuckwan, for a shed tent, complete the Trapper's equipment. His dog is not part of the equipment; it is fellow-hunter and companion.

From the moose must come the heavy filling for the snow-shoes; but the snow-shoes will not be needed for a month, and there is no haste about shooting an unfound moose while mink and musk-rat and otter and beaver are waiting to be trapped. With the dog showing his wisdom by sitting motionless as an Indian bowman, the Trapper steps into his canoe and pushes out. With eye and ear alert for sign of game or feeding place, where traps would be effective, the man paddles silently on. If he travels after nightfall, the chances are his craft will steal unawares close to a black head above a swimming body. With both wind and current meeting the canoe, no suspicion of his presence catches the scent of the sharp-nosed swimmer. Otter or beaver, it is shot from the canoe. With a leap over bow or stern—over his master's shoulder if necessary, but never sideways, lest the rebound cause an upset—the dog brings back his quarry. But this is only an aside, the haphazard shot of an amateur hunter, not the sort of trapping that fills the company's lofts with fur bales.

While ranging the forest the former season the Trapper picked out a large birch tree, free of knots and underbranching, with the full girth to make the body of a canoe from gunwale to gunwale without any gussets and seams. But birch bark does not peel well in winter. The Trapper scratched the trunk with a mark of "first-finder-first-owner," honored by all hunters; and came back in the summer for the bark.

II.

Perhaps it was while taking the bark from this tree that he first noticed the traces of beaver. Channels, broader than runnels, hardly as wide as a ditch, have been cut connecting pool with pool, marsh with lake. Here are runways through the grass, where beaver have dragged young saplings five times their own length to a winter storehouse near the dam. Trees lie felled miles away from any chopper. Chips are scattered about marked by teeth, which the Trapper knows; knows, perhaps, from having seen his dog's tail taken off at a nip, or his own finger amputated almost before he felt it. If the bark of a tree has been nibbled around, like the line a chopper might make before cutting, the Trapper guesses whether his coming has not interrupted the beaver in the very act.

All these are signs which spell out the presence of a beaver dam within one night's traveling distance; for the timid beaver frequently works at night, and will not go so far away that forage cannot be brought in before daylight. In which of the hundred waterways in the labyrinth of pond and stream where beavers roam is this particular family to be found?

Realizing that his own life depends on the life of the game, no true Trapper will destroy wild creatures when the mothers are caring for their young. Besides, furs are not at their prime when birch bark is peeled, and the Trapper notes the place, so that he may come back when the fall hunt begins. Beaver kittens stay under the parental roof for three years, but at the end of the first summer are amply able to look after their own skins. Free from nursery duties, the old ones can now use all the ingenuity and craft which nature gave them for self protection. When cold weather comes, the beaver is fair game to the Trapper. It is wit against wit. To be sure, the man has superior strength, a gun, and a treacherous thing called a trap. But his eyes are not equal to the beaver's nose. And he hasn't that familiarity with the woods to enable him to pursue, which the beaver has to enable it to escape. And he can't swim long enough under water to throw enemies off the scent, the way the beaver does.

Now, as he paddles along the network of streams, which interlace northern forests, he will hardly be likely to stumble on the beaver dam of last summer. Beavers do not build their houses, where passersby will stumble upon them. But all the streams have been swollen by fall rains; and the Trapper notices the markings on every chip

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and pole floating down the full current. A chip swirls past white and fresh cut. He knows that the rains have floated it over the beaver dam. Beavers never cut below their houses but always above, so that the current will carry the poles down stream to the dam. Leaving his canoe-load behind, the Trapper guardedly advances within sight of the dam. If any old beaver sentinel be swimming about, he quickly scents the man-smell, upends and dives with a spanking blow of his trowel tail on the water, which heliographs danger to the whole community. He swims with his webbed hind feet, the little forepaws either used as carriers or hanging limply, the flat tail acting the faintest bit in the world like a rudder; but that is a mooted question. The only definitely ascertained function of that bat-shaped appendage is to telegraph danger to comrades. The beaver neither carries things on his tail, nor plasters houses with it; for the simple reason that the joints of his caudal appurtenance admit of only slight sidelong wigglings and a forward sweep between his hind legs, as if he might use it as a tray for food, while he sat back spooning up mouthfuls with his forepaws.

Having found the wattled homes of the beaver, the Trapper may proceed in different ways. He may, after the fashion of the Indian hunter, stake the stream across above the dam, cut away the obstruction lowering the water, break the conical crowns of the houses on the south side, which is thinnest, and slaughter the beavers indiscriminately as they rush out. But such hunting kills the goose that lays the golden egg; and explains why it was necessary to prohibit the killing of beaver for some years. In the confusion of a wild scramble to escape and a blind clubbing of heads, there was bootless destruction. Old and young, poor and in prime, suffered the same fate. The house had been destroyed; and if one beaver chanced to escape into some of the bank-holes under water or up the side channels, he could be depended upon to warn all beaver from that country. Only the degenerate white man practices such hunting. To the true Trapper, it is repugnant.

The skilled hunter has other methods.

If unstripped saplings be yet about the bank of the stream, the beavers have not finished laying up their winter stores in adjacent pools. The Trapper gets one of his steel traps. Attaching the ring of this to a loose trunk heavy enough to hold the beaver down and drown him, he places the trap a few inches under water at the end of a runway or in one of the channels. He then takes out a bottle of castoreum. This is a substance from the glands of a beaver, which destroys all traces of the man-smell. For it, the beavers have a curious infatuation, licking everything touched by it and said, by some hunters, to be drugged into a crazy stupidity by the very smell. The hunter daubs this on his own foot-tracks. Or, if he finds tracks of the beaver in the grass back from the bank, he may build an old fashioned deadfall, with which the beaver is still taken in Labrador. This is a small lean-to, with a roof of branches and bark—usually covered with snow—slanting to the ground on one side, the ends either posts or logs, and the front an opening between two logs wide enough to admit half the animal's body. Inside, at the back, on a rectangular stick, one part of which bolsters up the front log, is the bait. All traces of the hunter are smeared over with the elusive castoreum. One tug at the bait usually brings the front log crashing down across the animal's back, killing it instantly. But neither the steel-trap nor the deadfall is wholly satisfactory. When the poor beaver comes sniffing along the castoreum trail to the steel-trap and on the first splash into the water feels a pair of iron jaws close on his feet, he dives below to try and gain the shelter of his house. The log plunges after him, holding him down and back till he drowns; and his whereabouts are revealed by the upend of the tree. But several chances are in the beaver's favor. With the castoreum licks, which tell them of some other beaver, perhaps looking for a mate, or lost cub, they may become so exhilarated as to jump clear of the trap. Or instead of diving down with the trap, they may retreat back up the bank and amputate the imprisoned foot with one nip, leaving only a mutilated paw for the hunter. With the deadfall, a small beaver may have gone entirely inside the snare before the front log falls; and an animal whose teeth saw through logs eighteen inches in diameter in less than half an hour, can easily eat a way of escape from a wooden trap. Other things are against the hunter. A wolverine may arrive on the scene before the Trapper and eat the finest

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beaver ever taken; or the Trapper may discover that his victim is a poor, little beaver with worthless, ragged fur, who should have been left to forage for three or four years.

III.

All these risks can be avoided by waiting till the ice is thick enough for the Trapper to cut trenches. Then he returns with a woodman's axe and his dog. By sounding the ice, he can usually find where holes have been hollowed out of the banks. Here, he drives stakes to prevent the beaver taking refuge in the shore vaults. The runways and channels, where the beaver have dragged trees, may be hidden in snow and iced over; but the man and his dog will presently find them. The beaver always chooses a stream deep enough not to be frozen solid, and shallow enough for it to make a mud foundation for the house without too much work. Besides, in a deep, swift stream, rains would carry away any house the beaver could build. A trench across the upper stream or stakes through the ice prevent escape that way. The Trapper then cuts a hole in the dam. Falling water warns the terrified colony that an enemy is near. It may be their greatest foe, the wolverine, whose claws will rip through the frost-hard wall as easily as a bear delves for gophers; but their land enemies cannot pursue them into water; so the panic-stricken family, the old parents, wise from many such alarms, the young three-year-olds, who were to go out and rear families for themselves in the spring, the two-year-old cubbies, big enough to be saucy, young enough to be silly, and the baby kittens, just able to forage for themselves and know the soft alder rind from the tough old bark unpalatable as mud—pop pell-mell from the high platform of their houses into the water. The water is still falling. They will presently be high and dry. No use trying to escape up stream. They see that in the first minute's wild scurry through the shallows. Besides, what's this across the creek? Stakes, not put there by any beaver; for there is no bark on. If they only had time now, they might cut a passage through; but no—this wretched enemy—whatever it is—has ditched the ice across.

They sniff and listen. A most terrible sound comes from above—a low, exultant, devilish whining. The man has left his dog on guard above the dam. At that, the little beavers—always trembling, timid fellows—tumble over each other in a panic of fear to escape by way of the flowing water below the dam. But there, a new terror assails them. A shadow is above the ice, a wraith of destruction—the figure of a man standing at the dam with his axe and club—waiting.

Where to go now? They can't find their bank-shelters; for the man has staked them up. The little fellows lose their presence of mind and their heads and their courage, and with a blind scramble dash up the remaining, open runways. It is a cul-de-sac. But what does that matter? They run almost to the end. They can crouch there till the awful shadow goes away. Exactly. That is what the man has been counting on. He will come to them afterwards.

The old beavers make no such mistake. They have tried the hollow log trick with an enemy pursuing them to the blind end and have escaped only because some other beaver was eaten. The old ones know that water alone is safety. That is the first and last law of beaver life. They, too, see that phantom destroyer above the ice; but a dash past is the last chance. How many of the beaver escape past the cut in the dam to the water below, depends on the dexterity of the Trapper's aim. But certainly, for the most, one blow is the end; and that one blow is less cruel to them than the ravages of the wolf or wolverine in spring; for these begin to eat before they kill. So much for the humaneness of the animals. Man's inhumaneness is kinder.

A signal; and the dog ceases to keep guard above the dam. Where is the runway in which the others are hiding? The dog scampers round aimlessly, but begins to sniff and run in a line and scratch and whimper. The man sees that the dog is on the trail of sagging snow; and the sag betrays ice settling down where a channel has run dry. The Trapper cuts a hole across the river end of the runway and drives down stakes. The young beavers are now prisoners.

The human mind can't help wondering why the foolish youngsters didn't crouch below the ice above the dam and lie there in safe hiding till the monster went away. This may be done by the hermit beavers—fellows, who have lost their mates and go through life inconsolable; or sick creatures, infested by parasites and turned off to house

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in the river holes; or fat, selfish ladies, who don't want the trouble of training a family. Whatever these solitaries are—naturalists and hunters differ—they have the wit to keep alive; but the poor little beavers rush right into the jaws of death. Why do they? For the same reason probably—if they could answer—that people trample each other to death when there is an alarm in the crowd.

IV.

They cower in the terrible pen, knowing nothing at all about their hides being valued all the way from fifty cents to three dollars according to the quality; nothing about the dignity of being a coin of the realm in the northern wilderness where one beaver skin sets the value for three mink, two otter, one martin, one bear, one pound of tobacco, one kettle, five pounds of shot, a pint of brandy and half a yard of cloth; nothing about the rascally Indians long ago bartering forty of their hides for a scrap of iron and a great company sending one hundred thousand beaver skins in a single year to make hats and cloaks for the courtiers of Europe; nothing about the laws of man forbidding the killing of beaver till their number should increase.

All the little beaver remembers is that it opened its eyes to day-light in the time of soft, green grasses; and that as soon as it got strong enough on a milk diet to travel, the mother led the whole family of kittens—usually three or four—down the slanting doorway of their dim house for a swim; and that she taught them how to nibble the dainty, green shrubs along the bank; and then the entire colony went for the most glorious, pell-mell splash up stream to fresh ponds. No more sleeping in that stifling lodge; but beds in soft grass like a goose nest all night, and tumbling in the water all day, diving for the roots of the lily pads. But the old mother always on guard; for the wolves and bears are ravenous in spring. Soon the cubs can cut the hardening bark of alder and willow as well as their two-year-old brothers; and the wonderful thing is—if a tooth breaks, it grows into perfect shape inside of a week.

By August, the little fellows are great swimmers and the colony begins the descent of the stream for their winter home. If unmolested, the old dam is chosen; but if the hated man-smell is there, new waterways are sought. Burrows and washes and channels and retreats are cleaned out. Trees are cut and a great supply of branches laid up for winter store near the lodge, not a chip of edible bark being wasted. Just before the frost, they begin building or repairing the dam. Each night's frost hardens the plastered clay till the conical wattled roof—never more than two feet thick—will support the weight of a moose. All work is done with mouth and forepaws, and not the tail. This has been finally determined by observing the Marquis of Bute's colony of beavers. If the family—the old parents and three season's offspring—be too large for the house, new chambers are added. In height, the house is seldom more than five feet from the base, and the width varies. In building a new dam, they begin under water, scooping out clay, mixing this with stones and sticks for the walls and hollowing out the dome as it rises, like a cofferdam, except that man pumps out water and the beaver scoops out mud. The domed roof is given layer after layer of clay till it is cold proof. Whether the houses have one door or two is disputed; but the door is always at the end of a sloping incline away from the land side, with a shelf running round above, which serves as the living room. Differences in the houses, breaks below water, two doors instead of one, platforms like an oven instead of a shelf—are probably explained by the continual abrasion of the current. By the time the ice forms, the beavers have retired to their houses for the winter, only coming out to feed on their winter stores and get an airing.

But this terrible thing has happened; and the young beavers huddle together under the ice of the canal, bleating with the cry of a child. They are afraid to run back; for the crunch of feet can be heard. They are afraid to go forward; for the dog is whining with a glee that is fiendish to the little beavers. Then a gust of cold air comes from the rear and a pole prods forward. The man has opened a hole to feel where the hiding beavers are; and with little terrified yelps, they scuttle to the very end of the runway. By this time, the dog is emitting howls of triumph. For hours he has been boxing up his wolfish ferocity and now he gives vent by scratching with a zeal that would burrow to the middle of the earth.

The Trapper drives in more stakes close

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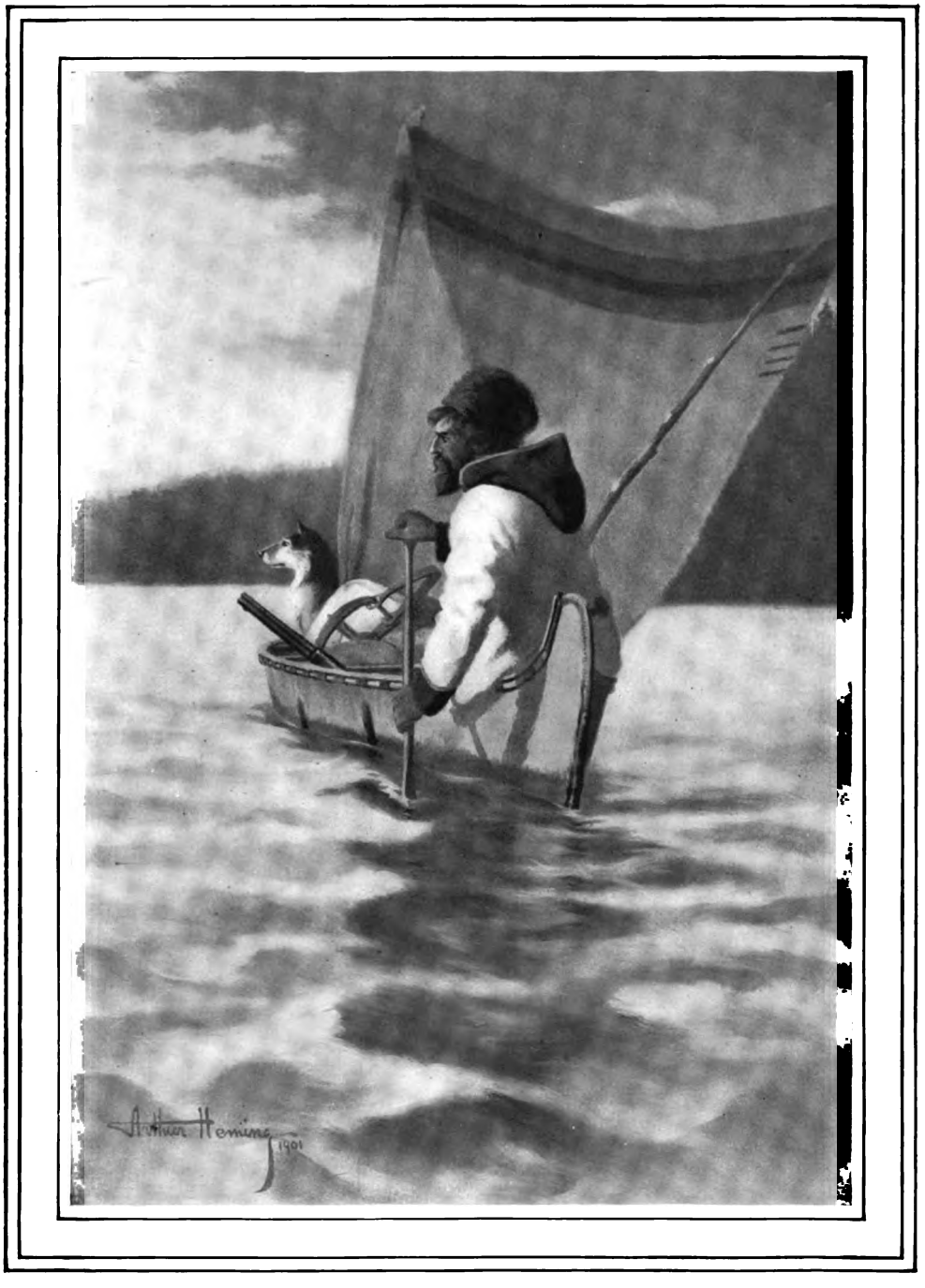

"WITH EYE AND EAR ALERT * * *
THE MAN PADDLES SILENTLY ON."

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to the blind end of the channel and cuts a hole above the prison of the beaver. He puts down his arm. One by one they are dragged out by the tail; and that finishes the little beaver—sacrificed, like the guinea-pigs and rabbits of bacteriological laboratories, to the necessities of man. Only, this death is swifter and less painful. A prolonged death-struggle with the beaver would probably rob the Trapper of half his fingers. Very often, the little beavers with poor fur are let go. If the dog attempts to capture the frightened runaways by catching at the conspicuous appendage to the rear, that dog is likely to emerge from the struggle minus a tail, while the beaver runs off with two.

Trappers have curious experiences with beaver kittens, which they take home as pets. When young, they are as easily domesticated as a cat and become a nuisance with their love of fondling. But to them, as to the hunter, comes what the Indians call "the-sickness-of-long-thinking," the gypsy yearning for the wilds. Then, extraordinary things happen. The beaver are apt to avenge their comrades' death. One old beaver trapper of New Brunswick relates that by June the beavers became so restless, he feared their escape and put them in cages. They bit their way out with absurd ease.

He then tried log pens. They had eaten a hole through in a night Thinking to get wire caging, he took them into his lodge and they seemed contented enough while he was about; but one morning he wakened to find a hole eaten through the door and the entire round of birch bark, which he had staked out ready for the gunwales and ribbing of his canoe—bark for which he had traveled forty miles—chewed into shreds. The beavers had then gone up stream, which is their habit in spring.

THE BEAVER AT WORK FELLING TIMBER.

PHOTOGRAPH FROM LIFE TAKEN BY AN ENGLISH SPORTSMAN OF VICTORIA, B. C.

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THE SPORTSMAN'S VIEW-POINT
BY CASPAR WHITNEY

"To brag little, to show well, to crow gently when in luck; to own up, to pay up, and to shut up when beaten."—*Dr. Holmes's definition of sportsmanly bearing.*

Up to the Football Rules Committee.

The football season of 1901 added nothing of strategical importance to the play of the game, but it did markedly signalize the ultra development of the human battering ram. Where this premium-on-weight policy is going to lead us within the coming year or two, is difficult to say, but of one result at least I am convinced, *viz.*, the finish of football, if something is not done to open the game, and to change the style of pounding play which has just about reached the point where it is too much for flesh and bone to stand. The Rules Committee has a great responsibility in directing the style of football, and it behooves the members to this year ponder earnestly before they determine upon their course. Their task is a serious one indeed, for on their action depends not only the fate of the game, but the physical entirety of players, may be; for we could scarcely escape another season without the internal injuries naturally incidental to such terrific pounding as forwards are subjected to by the modern play. We can stand for bruised muscles, even occasional broken bones—football is a hardy game and we would not have it emasculated—but when it comes to deep-seated contusions and other serious internal complications, it is time to make some changes in methods of play.

Hitherto the Rules Committee has obligingly tempered its legislative wind to the shorn football lambs left over at the colleges of the Committee's respective members; indeed the welfare of the game at large has been quite secondary to a wish not to interfere with the team prospects for the coming season. College men won't stand for this kind of legislation any longer. We have been for two years patiently awaiting the sound, wholesome rulemaking which the game has needed; and the time has come at last when the Rules Committee should administer to real and pressing needs of football, or make way for legislators who are big enough to rise above personal interest in the prospects of the forthcoming season.

Less Power Behind the Battering Ram.

Something must be done to lighten the hammering to which the men in the line from tackle to tackle, are subjected by the play of the day, that, whether it be guards-back or tackle-back, stands for the principle of the battering ram. I would not entirely do away with the principle—that the ram, however, should be made less crushing and more nearly within the capabilities of human bone and muscle to handle, all college men, with regard for the game's prosperity, are agreed. It is senseless to maintain that the impact of six men hitting the line is practically no severer than that of three; it is literally untrue to assert that the number of men, who to-day can lawfully get into this style of play, leaves no impression on the lists of the injured. I can produce evidence in abundance which will uphold me in the statement that the injuries from these plays are distinctive and serious—so serious that either they must be eliminated or the game fall into the disrepute it would thoroughly merit under the circumstances.

The burning question is not *whether* the game shall be cleaned of this noxious feature, but *how* best it is to be accomplished. Several ways will no doubt suggest themselves to such practical men as constitute the Rules Committee—and there are none better if they will, for the time being, forget their own colleges and consider the good of the game at large. The fundamental step, it seems to me, is to legislate that seven men invariably must be on the line until the ball is put in play; that would take much of its present overwhelming

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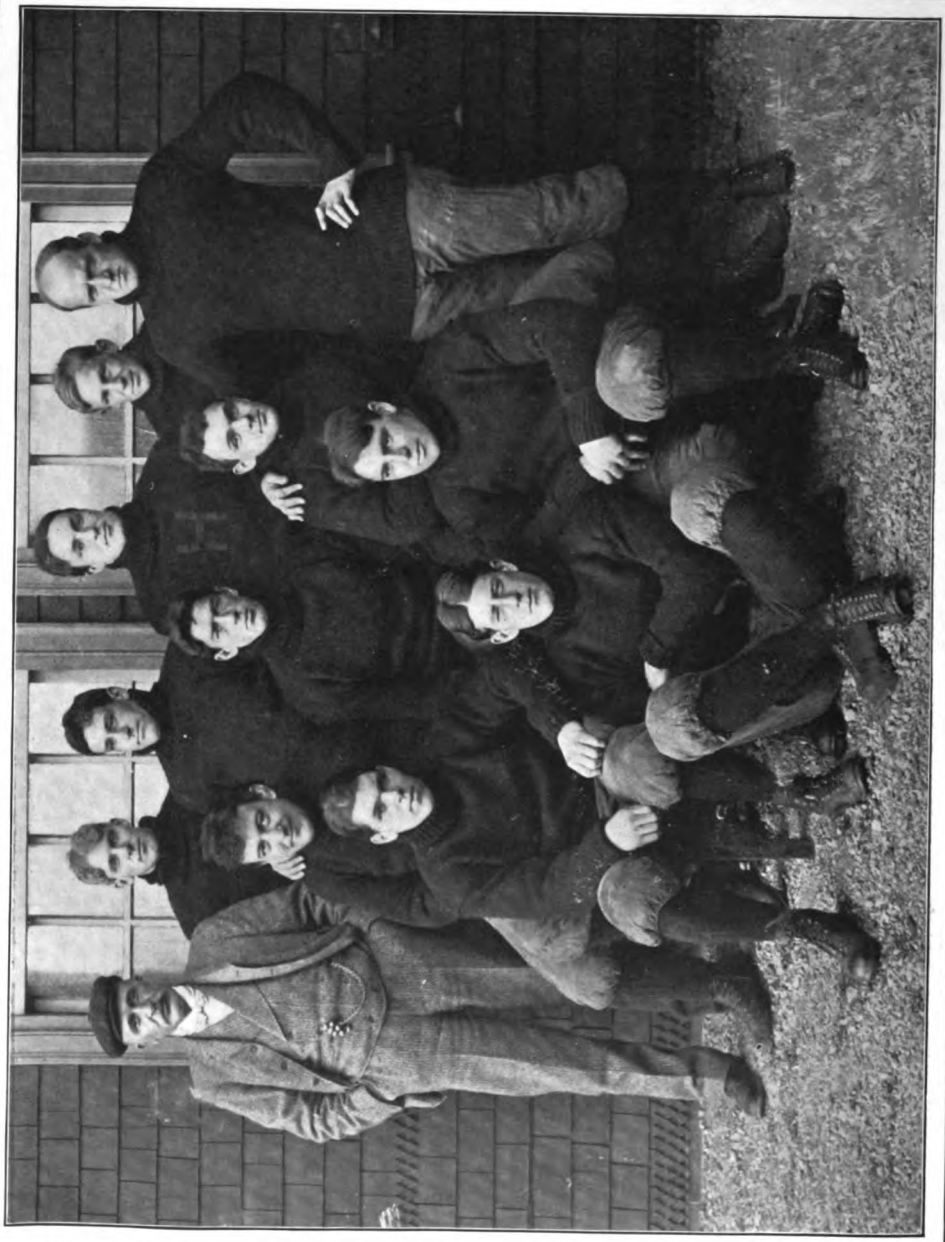

Photo by Pach Brothers, N. Y.

THE HARVARD FOOTBALL ELEVEN OF 1901.

1. Thomas Hetherington Graydon, '03, full back.
2. Oliver Frost Cutts, '02 Law, right tackle.
3. Charles Arthur Barnard, '01 Law, right guard.
Edward Bowditch, Jr., '03, right end.
William George Lee, '02 M., left guard.
Charles S. Sargent, Jr., '02, center.
7. David Campbell, '02, left end.
8. Albert William Restine, '02, right half-back.
9. Carl B. Marshall, '04, quarter-back.
10. Robert Peebles Kernan, '03, half-back.
11. Crawford Blagden, '02, left tackle.
12. McMasters (trainer).

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power from the battering ram and relieve present urgent necessities.

But there can be no doubt among football students that the game needs opening; and the success of lightweight, comparatively-open-playing-Syracuse against Columbia, shows, if there be need of illustration, that all of football skill and winning is not confined to the hammer and tongs method of play. Merely to lessen the number of men forming the battering ram will not bring about the desired more open play; to bring that, we must put a premium on kicking, long passing, wide end running, etc., and increase the difficulties of advancing the ball by the crude process of hammering some one on the opposing line into helplessness. We must put a premium on skill and speed, as against mere brute strength and weight.

With this end in view, it would seem to me advisable to lessen by one the number of downs permitted in gaining the requisite five yards, or to leave the number of downs as at present and increase the distance to be gained from five to ten yards; I rather favor the former, because it would disrupt present conditions less, and assure quick play with the ball changing hands more frequently.

In whatever way the Rules Committee encompass the existing difficulties of football none will care, so long as they arise to the occasion fittingly; that they must relieve the game's pressing needs, however, college men insist.

Undergraduate Athletic Control a Failure at Yale.

And while the Rules Committee is cleaning up the game on the gridiron, let us have a readjustment of existing relations among Harvard, Yale, Princeton, Pennsylvania, Cornell, Columbia, and an unequivocal understanding common to all of the ethics of college sport. On a question so clear as sport for the sake of the sport, it is no less than extraordinary how many differing opinions may obtain, where all are professedly seeking to achieve the highest standard. It seems to me that we in the East have been at the game long enough to have arrived at years of discretion and unity. Such indeed is the situation in the Middle West, where faculty representatives of the leading universities meet annually to discuss and profit by experience—and the western universities have not had one third the years of athletic activity of the eastern universities. That the spirit of a given rule should be interpreted one way at one university, and differently at another; that, to give a concrete illustration for instance, the students' playing period should mean at Harvard, four years in any and all games and at Yale, four years in any one game, is surely not only ill-advised confliction of custom, but actually harmful to college sport.

Experience has shown that faculty control is absolutely essential to the wholesome conduct of college sport, and wherever such system is perfected, there we find invariably the sport of the students on the most healthful plane. Within very recent years, all the leading educational institutions East and West, have come to this system, which consists of an athletic committee composed of faculty, alumni and undergraduates—all save Yale, where the undergraduates are said to be in complete control, and the captain of each team responsible for the ethical status of his men. If we judge by results, as of course we must, Yale's system has proved a failure, for during the last two or three years, the period in which undergraduate control at New Haven has been rather prominently thrust before us, there have been more infractions of the spirit of college sport, than within the same time at Harvard, Princeton, and Pennsylvania combined, or at Yale throughout the long honorable period just previous, when George Adee's guiding word was sought and heeded. From the day Mr. Adee ceased to be the guiding spirit of Yale sport there has been worship of strange gods at New Haven.

Now, why is it? Certainly not that Yale undergraduates are different from other undergraduates; emphatically not that Yale men are unmindful of ethics—on the contrary—practically all the Yale *alumni* of my acquaintance are earnestly and actively in sympathy with wholesome college sport; but solely because undergraduates, boys, of any college or any section have not the experience, the poise, or the perspective to enable them to handle so large and so burning a problem as the ethics of their college sport. It is beyond reason to expect it of them. What experience in such matters has the average boy of eighteen to twenty; many of them, coming from over all the country, hardly know the true

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nificance of the term amateur. Add to this his partisanship—without which he would be only half a rightful college boy—and keenness to have his *alma mater* win—and do you imagine the resultant boy is equal to sitting in deliberate unbiased judgment upon one of his fellows, who, perhaps, may be very valuable to a team? And is it fair to the boy captain to make him the judge of his own men? It is asking rather too much of human nature.

I have intended this for a deliberate review of facts, with no idea of reopening old cases, or of directing criticisms anew. Rather, I have sought to present the situation so plainly to Yale men that they must recognize the unwisdom of continuing the system of undergraduate athletic control, which now, so we are told, obtains at New Haven. There must be some responsible athletic head with whom other universities can deal, and who will spare this good old Yale the humiliation of having the *bona fides* of her athletic sons occasionally doubted.

Old Rules and Some New Ones.

For Harvard, Yale, Princeton and Pennsylvania and the rest to come together for a conference on common rules would be such a happy way to begin the New Year. There are only a few new rules that we want, though we want those sorely, but intercollegiate sport very much needs agreement on several important questions. For instance, as to this summer baseball playing on teams professional, semi-professional, and where gate money is taken. This is now, perhaps, the most disturbing element in college sport, and must be handled without gloves. The Middle Western Intercollegiate Conference recently ostracized this kind of athlete, and none too soon either, for he was becoming a menace to the college sport of that section. So, also, the western colleges have cleared up the four-year playing rule; so that it now limits, as it should, the total playing period in any or all games to four years. Strange enough, the Western Conference failed to pass a one-year residence rule, but must see the importance of doing so soon, and when they do, the rule will be passed, for the West as a whole stands eminently for straightforward athletics, despite periodical irregularities in varying directions.

In the East we need more to get together harmony on the rules already framed than to make others; but there are two new ones which I strongly advocate—(1) to forbid the 'varsity to all first-year men, whether or not they come from other colleges (this will stop recruiting among the "prep" schools); (2) to forbid thereafter to college teams any man who, while teaching at a small college or "prep" school, coaches or plays on a team of the institution where he is teaching.

And this brings me to perhaps the most vexatious case of the year—that of Cutts, which presented one of the hardest problems any Athletic Committee ever had to solve. It was so long ago, I should not pass opinion on it were it not that my published judgment has been requested. Previous to going to Harvard, Cutts taught and was paid for teaching mathematics at a small college; he also, while at this school, took some casual supervision over the boys' athletics; this was something he rather grew into through his athletic taste, and which was not mentioned on his original engagement, and for which he received no pay. Nevertheless, with the idea common at small institutions of swelling the list of branches of instruction, Cutts was catalogued as instructor of "mathematics and athletic director." As I say, he was not paid for athletic instruction, and we have it on the sworn testimony of the head master of the school that had Cutts ceased his athletic instruction, it would have made no difference in his salary.

Had the case been presented to me two weeks before the Yale game, I should have declared Cutts ineligible; not that I believe his mathematics a subterfuge, and his salary given really because of his athletic instruction—on the contrary, I believe in his *bona fides;* but because his was a clear violation of the letter of the law, which must be applied rigidly to protect college sport against those whose spirit could not be trusted. It is, too, unfortunate we must sometimes wound the true spirit in upholding the letter.

But the case was presented just on the eve of the Harvard-Yale game—two days before it, in fact; Cutts' previous association with the small college had been known all the season, and he accepted as an amateur qualified for the team. Under all the circumstances, I do not see how, in simple justice to Cutts, the Harvard Athletic Committee could have decided other than it did. *i. e.*, to play him. Not to have played hi

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would have been to stigmatize him as a professional, and a man who had deceived his fellows and was unworthy to represent Harvard. That, under the circumstances, would of course have been outrageous.

At the same time, if the Harvard Athletic Committee was familiar with all the conditions of the case early in the season; it merits criticism for not withdrawing Cutts from the football squad, and sparing him and Harvard violation of the law's letter.

This case emphasizes the desirability of an understanding among universities that no protests be made within ten days of a game.

Ranking of the Elevens For 1901.

In the matter of football ranking for the season of 1901, Harvard has earned the distinction, attained in 1900 by Yale, of being in a class by herself. In fact the Yale eleven of 1900, and the Harvard eleven of 1901, are the two most powerful teams to have been developed by the modern style of American Rugby. What a magnificent contest the two would make! The winner? Ah, that is indeed a hard one; moreover, what a shame it would be to spoil a post-prandial topic of such limitless discursive possibilities!—so I pass it on.

Harvard used Yale's play of 1900, the tackle-back—and though the weight of her men made the shock of the impact perhaps a bit greater, the play moved with less speed than Yale had put into it the year before, and was unchanged in any of the essentials. Harvard made no improvements of her own, but no team in football history was ever so entirely together, not even Yale's great team of last year. Therein lay Harvard's really great strength, as many as six, and at times seven, men constituting the ram with which she battered holes through any point of Yale's line. No amount of skill, in a team averaging twelve to fifteen pounds the less per man, can withstand such a united onslaught; it's a question of concentrated brute strength. The back field was the swiftest and most mobile of the year and imparted the speed element to Harvard's plays. Ristine, Graydon, Cutts and Blagden did the ground gaining—Marshall showing well, too—and Kernan did the punting, and did it well. Blagden, I observe, has been mentioned but casually in connection with the splendid and spectacular line bucking of Cutts in the tackle-back formation, but I want to record here that Blagden was the man who did the heavy work of that play and that without him, or one equally as good, it would not have proved so irresistible. I want also to mention Greene, who, although called upon at the eleventh hour, played his game so well as to challenge the superiority of one of the best centers in the college world. Head coach Reid deserves great praise, for his task was no easy one; the physical condition of the team, too, was superb, thanks to Dr. Brooks, and the trainer; it was the first Harvard team in three years trained to the hour of its Yale game.

It has been said that Yale did not show up against Harvard as strongly as expected, and that is perfectly true; but the reason is not, as alleged, that Yale failed to do herself justice, but because Harvard revealed a great deal more strength than was generally estimated she had to develop. Yale's 1901 team was not, of course, so strong as that of 1900, but it was quite up to the Yale average, which means that it was a thoroughly first-class eleven. What chance it had it played first-class football against Harvard, though not being in such remarkable unison as Harvard, the Yale line and back field gave the impression by comparison of not being together. Against Princeton, it must be admitted, Yale did not play first-class ball, in fact the quality of that game averaged about the poorest I have seen in a Yale-Princeton game since 1890. The truth of the Harvard-Yale game is that Yale's offense never got the chance to get going, while the defense was crumbled by a human engine which with the greater weight and skill, crashed through Yale's forwards with a force irresistible. Yale was overwhelmed; and all overwhelmed teams appear not to do themselves justice.

Princeton had hard luck all through the season, with so many crippled men that her team was never intact two games in succession; in addition there was rather questionable judgment in the Yale game, which directed so long a period of defensive tactics. Princeton's attack was long delayed, and when it did come off in the last of the second half, it emphasized the folly of its tardiness. Yale gained 153 yards to Princeton's 69 in the last half, but the significant feature of Princeton's gain, is that sixty of those yards were made in the last

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ten minutes. However, there was never doubt of the winner; Yale was clearly superior, though not so aggressive as usual, better team work, better handling of the ball, better physical condition; had she not appeared to grow careless because of the easiness of the conquest, she must have largely increased the score. Princeton played about up to its 1901 form; the line men did their work well, and the ends are stars; but the back field was so disintegrated as to neutralize the work of the forwards. It was the poorest back field among the leading teams of 1901, and the means of dropping Princeton lower on the season's ranking than she has been for years. The Yale-Princeton series beginning with 1877 now stands: Yale 13, Princeton 9, one tie and two unfinished games. A fumbling microbe seemed all season to infest the Harvard-Yale-Princeton atmosphere.

West Point's Good Record. Next to Harvard, the team of the year to attract most attention is West Point, not that it is comparable with Harvard in her final form, or that it could successfully defend itself against defeat by Yale, but because its showing for the season is second to none. It played Harvard, Yale, Princeton, and scored eleven points to opponents seventeen; and half of the latter were secured through merest good luck. It is argued that Harvard, Yale and Princeton were not at their best when they met West Point—of course not—neither was West Point. True West Point was going off in condition when it met Annapolis, but its playing form was only slightly affected. The Army's triumph over the Navy has been alluded to as a one-man victory, but that is superficial reasoning. It is to be remembered, that the West Point team was coached and its play arranged to make the most of Daly's drop kicking and running. Without the fine team West Point had behind him—Daly could not have made the splendid exhibition he did. His touchdown from kick-off, for example, was the result of as good team work as ever I saw; every Navy man was so completely put out of the play that Daly ran 100 yards without at any time being even in danger of a tackle. Daly was in better form than last year, but has never since equaled that of '98 and '99.

There is no question in my mind of West Point being entitled to rank next to Yale among the eastern college teams.

Annapolis finished a somewhat variable, but on the whole thoroughly commendable, season with an impressive exhibition of football skill and pluck on Franklin Field, against West Point. It is a curious fact that in the games between these two National Academy teams, the Navy has almost invariably excelled, and the Army not quite equaled the expectations of their friends. And this year the Navy outdid its previous record, for although outweighed four pounds to the man, and younger by eleven months, it outrushed the Army team. On the total distance gained with ball, Army made 421 yards, Navy 344; exclusive of Daly's 100 yards run from kick-off the Army shows 321 yards rushed; on running the ball back on kicks the Army earned 198 yards to 109 for the Navy. In short, the lines were about evenly matched; Annapolis superior on end runs, West Point superior on handling kicks and in open field running. It was a thoroughly first-class game with few errors, and second in quality only to the Harvard-Yale game. The record of the Army-Navy series now stands:

1890 Navy, 24; Army, 0.
1891 Army, 32; Navy, 16.
1892 Navy, 12; Army, 4.
1893 Navy, 6; Army, 4
1899 Army, 17; Navy, 5.
1900 Navy, 11; Army, 7.
1901 Army, 11; Navy, 5.

Cornell had a well rounded team, the best in its history, with an aggressive line and a strong back field; it is so near Princeton that there is really no choice between them, other than that prompted by personal bias. But for that exhibition of a running game in the last fifteen minutes of the Yale match, Princeton would certainly fall below Cornell in the season's ranking.

Both Columbia and Pennsylvania have had lessons this year which should be of great profit in years to come. Columbia will not again, I fancy, endeavor to play all the big teams on earth, or seek reinforcement from ex-athletic club players. Pennsylvania will set to work building football teams from the foundation and not from the second story. It is a pity George Woodruff could not have been retained to put the finishing touches on the teams —for, in that particular, I doubt if he has a superior.

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All-America Football Eleven For 1901.

I am lacking the space this month, and perhaps nothing of interest could be added, to take up in detail the indivduals chosen; besides there is abundant comment on most of them in the eastern and western reviews which I indorse save in such particulars as differ from my selection herewith.

ALL-AMERICA ELEVEN FOR 1901.

Graydon (Harvard), full-back
Kernan (Harvard) and Morley—captain, (Columbia), halves.
Daly (West Point), quarter
Bowditch (Harvard) and Snow (Michigan) ends
Cutts (Harvard) and Blagden (Harvard) tackles
Barnard (Harvard) and Hunt (Cornell) guards
Bachman (Lafayette), center.

SUBSTITUTES.

Cure (Lafayette), full-back
Chadwick (Yale) and Larson (Wisconsin) halves
Brewster (Cornell), quarter
Campbell (Harvard) and Davis (Princeton) ends
Bunker (West Point) and Curtis (Wisconsin) tackles
Lee (Harvard) and Mills (Princeton), guards
Holt (Yale), center

RANKING OF TEAMS:

1	Harvard	11	Columbia
2	Yale	12	Pennsylvania
3	Michigan	13	Minnesota
4	Wisconsin	14	Dartmouth
5	West Point	15	Williams
6	Princeton	16	Northwestern
7	Cornell	17	Illinois
8	Lafayette	18	Chicago
9	Annapolis	19	Iowa
10	Syracuse	20	Tennessee

Middle Western University Football.

Speaking generally for the West, there is more appreciable progress in the development of football skill, than in the East. This is partly accounted for by the later adoption of the game and partly because of the alertness of mind and intolerance of mediocrity which have served to make the great West what it is to-day. Moreover, I consider the spirit of play and the spirit in which the games are legislated for to be superior to that in evidence throughout the East. Of course, there are groups of institutions in the East, where the highest ideal is observed—but I am comparing the sections at large. Western men, as a rule, are more genuine than eastern men, dissemble less, are more stalwart in their actions and more faithful to their ideals. There is a real sense of the game for the game's sake among the faculty members of the leading middle western universities who meet annually to better their athletic conditions.

To be sure the middle western colleges are not above criticism, but the spirit is moving and the evils being gradually eradicated. The semi-professional baseball player has been a thorn in the flesh, but he has now been declared ineligible. A one year's residence rule is needed, and should be forthcoming.

Michigan and Wisconsin in football are this year to the West, as is Harvard to the East, and between the western teams choice is difficult indeed, though Michigan has the remarkable total of 501 points scored to none against her. Each has a strong, heavy line and a good back field—especially Wisconsin, whose Larsen and Driver are just about as good as any in the country. In style of game, in running with the ball, and in punting, these two teams stand well up towards the very head of American football; in the handling of kicks and in highly developed team play, however, they are quite a bit inferior to the eastern leaders. In respect to ethics of the game Michigan is easily the leader in the West, with Chicago and Iowa a good second and third. I shall hope to see much clearing of the atmosphere at the other institutions this year.

I was deeply impressed by the conduct of the two final great games of the West, Michigan–Iowa, and Wisconsin–Chicago, in Chicago. The play went on without delay and without some agent or other of one side frequently running onto the field to deliver some message from the coach, and carrying sponge or bottle or pail by way of subterfuge. There was no coaching from the side lines; there were no men on the side lines but the single coach of each team; there were only the substitutes and the two or three assistant coaches inside the fence. Think of it—ye Eastern men—a field with no side line benches to accommodate the friends of the college management. These were the best conducted games I have ever seen, and put our Harvard–Yale, Yale–Princeton games to very shame by comparison. Evarts Wrenn and Ralph Hoagland are two officials who have done much to bring about this praiseworthy state of affairs in the West.

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Confusion in the Southern Intercollegiate Association.

In the South there is need of a re-adjustment in the Intercollegiate Association which will save it from criticism that now falls upon it on account of a confusion of ideas as to the interpretation of certain rulings. The South is far behind the West in respect of clear legislation and fearless enforcement of its rules. There have been several instances this past season of men clearly ineligible, allowed to play through unusual interpretations of simple rules. There is no longer excuse for the South; it is high time the university faculties cleaned their teams of semi-professional ball players, and others who have received money for play.

Tennessee appears to be entitled to first rank among southern teams, with Gallaudet, Georgetown, St. Johns, Virginia, North Carolina and Sewanee, worthy of especial mention. No player has shown All-America quality, but Tutweiler, Walker and Bennett, of Virginia; Counselman and Ware, V. P. I.; Johnson, V. M. I.; Given, Kerns, Sullivan and Hart, Georgetown, and one or two men behind the lines of North Carolina and Sewanee, are men that appear to stand out more prominently than others. Georgetown, I am happy to see, has turned a new leaf, and Manager Thompson is to be congratulated. There is no reason why this excellent institution should not keep its teams free of semi-professionalism.

But the institution in the South to deserve perhaps more credit than any other for its showing is St. Johns at Annapolis—which with its only 125 boys has yet from time to time defeated the southern leaders, and, meanwhile, attained the unique distinction of keeping its sport clean.

Encouraging Elk Teeth Traffic in Wyoming.

It will be remembered by the readers of OUTING, that I have during the last six or more months had quite a bit to say concerning the unlawful killing in Wyoming of wapiti for their tusks. For those who don't know, I should say that these tusks are the canine teeth carried in the upper jaw, one on each side, immediately back of the incisors. They have been adopted as an insignia by a society known as the "Elks," which draws its membership very largely from the stage, and has branch lodges throughout the coun- This has made a market for the teeth, and wapiti are being slaughtered in season and out, to supply the demand. Wyoming is the scene of a great deal of this lawlessness, and since this is, in many respects the greatest of our big game States, it will interest sportsmen to learn how the game laws are being enforced there.

Recently two sportsmen of Philadelphia, Messrs. W. Worrell Wagner and Sherbourne W. Dougherty, had an experience which speaks for itself; while hunting this last autumn in the Gros Ventre mountains, they encountered two men claiming to be prospectors, but whose outfit and general appearance, together with the nature of the country, rather indicated them as market hunters. As it happened, Mr. Wagner and his party entered the locality through which these men had preceded them by about ten days, therefore when carcass after carcass of wapiti was found, from which only the tusks had been removed, there seemed slight doubt as to the culprits. The guides of Mr. Wagner's party, Nelson and Silas Yarnall, and the cook, Jack McCabe, were determined to arrest these teeth hunters, and so when the party had been driven out of the mountains by a snow storm, they set forth with a small pack train. Going up the Wind River, they met the teeth hunters near the Ram's Horn. Giving the impression that they were hunting for a bunch of strayed horses, the Yarnalls and Jack back-tracked at night, held up the law breakers at the rifle's muzzle, searched them and their camp and found twenty-six pairs of elk teeth, representing of course twenty-six elk.

The teeth hunters were taken to the nearest Justice of the Peace, Richard Green at Dubois, where one of them, Rudolph Rosencrans, pleaded guilty, and was fined $25 and costs, the total being $38.80!! That is to say, this wholesale infraction of Wyoming's law protecting one of its most valuable possessions, its big game, was punished by the infliction of the minimum penalty, the maximum being a fine of $100 and imprisonment for six months. Even the maximum would seem, in this instance, to be totally inadequate.

Thirty-eight dollars and eighty cents for twenty-six elk! less by $1.20 than the non-resident license fee for the privilege of shooting two! There seems to be no hope for the game of Wyoming short of National supervision. Evidently nothing is to be expected from internal action; the spirit of

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the State apparently makes for individual license, irrespective of results so far as the game is concerned. No State in the Union is so richly endowed, and none is so unmindful of its treasures. If ever there was a case of killing the golden-egg-laying goose, it is on exhibition this same day in Wyoming under the very noses of Governor Richards, and his game warden, Albert Nelson.

Thirty-eight dollars and eighty cents for slaughtering twenty-six elk for their teeth!

If Governor Richards is the sportsman he claims to be he will see that the State laws are employed to protect the game rather than as they seem now to be for the protection of the market hunter.

Eastern Sportsmen Pay the Piper.

Much of the criticism which falls upon the heads of the state game wardens, should be, I am convinced, directed against the legislatures and governors that by a niggardly policy, make it utterly impossible for a warden to entirely fulfil his duty. For example, I have been recently looking into the situation in Wyoming where so much dissatisfaction exists over the inadequate protection given the game. Here is a sparsely settled territory, where the people have been accustomed to kill game for meat in season or out, yet the State makes no appropriation whatever to enforce the laws of protection which its Legislature has enacted, or to aid the game warden in his patrol of nearly 100,000 square miles. There is a game fund dependent entirely on the revenue derived from shooting licenses which is the sole financial support of the warden's office. One year this fund reached $8,000, most years it does not run so high. The warden is allowed, of this fund, $1,200 for his services, but out of his salary he must pay his own traveling expenses, office stationery and the printing of the game laws. What can be expected from such a policy? In other words, eastern sportsmen foot the bill for what poor protection is now afforded Wyoming game, while the State without putting up a dollar reaps a considerable harvest from their various expeditions. The non-resident must pay a forty-dollar license fee for the open season. The resident pays one dollar! Our right, therefore, to call the Governor of Wyoming to an accounting cannot be denied, especially since it is the Governor's particular instruction to the game warden not to "incur any indebtedness to the State under any circumstances." At the same time, and entirely apart from the question of fitness of the present game warden, there is no doubt of his not having money enough at command to properly patrol the game regions of the State, but it does also appear to be true, that better use in the way of real protection, might be made of the money he has, and which is paid into the State by eastern sportsmen for shooting licenses. Governor Richards must give us some practical evidence of his "deep interest in the protection of our game," else we must continue to view him as a decidedly negative influence in the protective movement. In the meantime we recall several instances of his official indifference to game law violation, and his disregard of a special plea for an amendment to the present insufficient law, prohibiting sale or barter in elk teeth.

Forest Reserves and Game Refuges.

These are some of the reasons why every intelligent student of this country's needs is in favor of extending the range and the influence of the forest reserves; no question of deeper import to the internal economy of our land will come before Congress this session. By way of a beginning the Yellowstone National Park should be increased to about double its present size, especially extended on the south to take in if possible the Gros Ventre range. It is beyond the present southern boundary of the Park that in recent years great herds of sheep have come and wire fencing been stretched to destroy a one time winter range of the elk which summer in the Park. Really the Park should be extended east to include the Big Horn mountain district where in summer sheep from the south literally swarm over the Government land. The number of settler's claims in this country touching the Park south and east is very small, but were it great the Government should take possession of the country, if only to reinforce its own good work in making the original reservation.

What is true of the Yellowstone Park region is true also of a number of other widely separated districts which at one time or another have been set apart as forest reserves. That which has been done is only a beginning of a work which must be carried to finality if permanent good is to ensue;

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the present reserves are like the ten-foot shaft the miner sinks to prospect his claim; having found "pay dirt" he must dig deeper and wider to realize results. There are thousands upon thousands of acres of land in the West which have no value whatever for settlement purposes; and wherever these occur they should be taken over by the Goverment to extend the present scheme of forestry preservation. With the Forest Reserves enlarged and hunting absolutely forbidden within their precincts as is the case in the present National Park, there will be some assurance of protection to both tree and animal life.

Still Seeking Types at the Horse Show.

Each year it seems as if we must have reached the limit in heavy harness horse quality, and yet every succeeding horse show at the Madison Square Garden has something still better to reveal. This year was no exception; the ribbon winners in the under and over 15.2, were really superb, and quite above the average of any previous year. Yet it is all a matter of individual rather than of class excellence; we seem to be no nearer an evolved type than half a dozen years ago; and the judges are apparently as much at sea as those, who, from outside of the ring, watch, and, at times, marvel, at their decisions. A review of the several years' winners for the Waldorf-Astoria challenge cup "for best horse suitable for a gig," would alone confuse any studious horseman who sought an official consensus upon a type for this kind of trap. But there is no doubt of the superb quality of the various individuals which from year to year have been put forth by the judges as a type.

Where I notice most general improvement, as it seems to me, is in the less showy but more serviceable road horses, if I may so call the horses which we use in the four and the tandem and the cart, out of town, to distinguish them from those extravagantly high actors which occasionally we see in the parks, but for the greater part appear only in show rings. The road fours at Madison Square were unusually fine—ahead of any year I remember.

We do not seem to get on very rapidly towards a saddle horse type; the judge of every year appears to have in mind a different one from that of the judge in the preceding year; and this year an imported judge seemed really to be of two minds. There were a few good individuals, but the class was not much to be proud of after ten years of endeavor.

Generally speaking, the hunter classes seem to have become classes for show-ring jumpers; this was especially true of the so-called novice classes, where scarcely any were of hunter conformation, but all jumped in a form which bespoke long experience in the ring. An amount of jumping is necessary, I suppose, to appease the spectators who pay admission expecting spectacular events, but it's a pity a rigid division can not be made between show-ring jumpers and hunters. Rarely do we see nowadays the real hunter at Madison Square, though some good imitations of him, I must confess, find their way from Canada into the New York ring.

The half-bred hackneys did well this year, made the best showing indeed that they ever have; perhaps we are after all to have some permanent useful members of the horse world from this breed—certainly we have awaited them with due patience.

In appointments throughout all classes, the standard was very high, as high indeed, as it can well be, and superior to anything to be seen at either the London or the Paris shows.

Governor Odell Encourages Spring Duck Slaughter.

Governor Odell of New York, after claiming, as does Governor Richards of Wyoming, that none than he has deeper interest in protecting game birds and animals, vetoed, recently, without so much as a word of explanation, a bill to prohibit spring duck shooting. It was a bill fathered by the New York Association for the Protection of Game and Fish, an honorable body which has done much for this State's game interests, and indorsed by not only all the sportsmen of New York, but by the more intelligent members of that class of shooters who go afield solely to "kill something." The bill passed the Legislature and awaited the Governor's signature to become law; Odell fiddled along over it until the last day and then announced he had no time to seriously consider it, but if it came to him again he would give it his attention—implying he would sign it. Again the Legislature reported favorably on the bill and again it was before the Governor, only

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needing his signature to put an end to the slaughter of ducks during their mating and breeding season. Again Odell fiddled; and, at the eleventh hour—vetoed the bill!

No doubt the Governor thinks there are more votes to be had among the market hunters of Long Island, whence comes the only opposition to prohibited spring shooting, than among the sportsmen of the State. —but that is where the Governor makes mistake number two. Mr. Odell will long be remembered by sportsmen, after he has sunk below the political horizon; during the gubernatorial incumbency he has distinguished himself as an opponent of worthy legislation for the protection of the State's game interests. Perhaps the Governor feels the need of distinguishing himself in some direction.

Good Work by the Amateur Athletic Union.

The Amateur Athletic Union has recently taken two very commendable actions—one looking towards the rigid separation of amateur and professional events at sportsmen's shows and similar organizations; and the other in resolving "that the trap-shooters who shoot for a sweepstake be declared professional athletes." Some trap-shooters have presumed to question the A. A. U.'s right to make such a ruling—but such objection need not disturb the A. A. U. officials. The A. A. U.'s position not only cannot be assailed, but it has the moral support of all sportsmen. There is an absurdly illogical feeling among certain classes of trap-shooters, that amateur and professional are distinguished on personal income rather than on ethical grounds, *i. e.*, he who "doesn't need the money" he shoots for is an "amateur," but he who reckons on the purses he wins as one of several means of income—why *he* is a professional. Of course, a man who shoots or runs or drives or walks or indulges in any game for a money prize is a professional. The A. A. U. merits the gratitude of sportsmen in declaring ineligible to its amateur events those trap-shooters who compete for money.

As for these water polo and other exhibitions at the winter sportsmen's shows, in which amateurs take part, too much care cannot be taken to keep the amateur end clean. Indeed, it would be wiser in my judgment, to forbid amateurs competing at exhibitions of this character, or at any exhibition or show which was not directly under the control of an athletic organization. To my way of thinking, the introduction of water polo games as side shows into the purely commercial atmosphere of these public industrial exhibitions, is undignified and hazardous.

Should the suspicions of the English Amateur Athletic Association be verified that Messrs. Kranzlein, Duffy, Tewksbury, Baxter, Long, Flanagan and Sheldon exacted and received "liberal expenses for competing at the smaller meetings throughout England, Scotland and Ireland," in 1900 and 1901, the Amateur Athletic Union must and will, of course, respect the English Association's finding and disqualify the accused athletes. Meanwhile, it behooves Pennsylvania and Georgetown universities to sift the matter thoroughly on their own account, and to act promptly and vigorously for the sake of their own athletic integrity.

Help a Grand Work.

Those who are concerned in the preservation of our birds of song and plumage, should without delay, send substantial evidence of their encouragement to Abbott H. Thayer, Monadnock, New Hampshire. The smallest subscription will be thankfully received; put a one dollar bill in an envelope if you can afford no more, and it will all go toward helping the American Ornithological Union in its fight with milliners and their agents. The work accomplished by this Union last year, was amazing on the amount of money expended, and is a lesson to other associations and states. The entire work of patrolling the Atlantic coast from New Brunswick to Louisiana, including journeys to visit legislatures and inspection of wardens' work, was done for $2,000. And the work was thoroughly done, so thoroughly that the remaining sea-bird colonies along the coast were unmolested by milliners' agents for the first time in years. Half the work of the Union is in securing protective laws, and then watching lest they be scuttled in the next legislature by amendments instigated by dealers; the other half is maintaining wardens who see that the laws are respected and violators arrested.

The subscription fund out of which the expense of this splendid work is paid, is about exhausted, and money is needed.

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THE NATIONAL HORSE SHOW OF 1901

NOW that the New York show of 1901 has passed into history we may discuss its leading features.

Beginning with the most important—the heavy harness horse department—one is especially impressed with the advance stallions are making in this direction. Double, tandem and four-in-hand, they prove amenable to discipline, and attractive for the purpose intended—most docile in every way—but that they have proper place in a brougham or other vehicle intended for ladies' use is very doubtful, and judges are taking a great risk in endorsing such innovations. The question is not if some one particular stallion is suitable for the job, but whether the entire horse is a typical family carriage horse, and to that there can be but one answer, a negative. All awards should figure from the general and not from the particular side of the question; and in upholding Red Cloud as a brougham horse (grand type though he is) the award was as open to criticism as was that of presenting the 14.3 cob Lord Brilliant as a typical gig horse; and this for the second time.

Although the gig is a vehicle Americans practically never use, and although a gig horse is an animal which is never inquired for, all shows offer handsome tokens for this class. A composite photograph—or a collection of likenesses—of the various winners of the Waldorf-Astoria Cup would be most interesting, including all sorts, shapes and sizes from Red Cloud, who is now not a gig, but a brougham horse, to Lord Brilliant, who used to be a cob but is now a gig type; from flat and narrow von Harbinger to flashy Lady Ursula! Really, now, after five years of it, what is a gig horse?

Much complaint has annually been made that we reach no definite results in our saddle horse selections, but general fault finding by these exhibitors blinds us to the fact that precisely the same thing is going on in the "heavy leather" divisions.

Good as was the general average throughout all such events, we have probably never seen so many sprawling, hopping, uneven goers in any show, and this was due as much to evidently hurried preparation and imperfect manners as to the excessive pace allowed in most classes. No arena ever presented a better surface, and the animal that made a poor show over it was bad indeed. These pace requirements seem to vary extraordinarily, and most unaccountably. For instance, in one dealer's class where pace might well have been considered, as there was no specification as to the purposes for which the contestants might be used, the blue went to the only horse in the large class which really had not a particle of speed; while, in the Waldorf-Astoria Cup, a flashy little runabout horse went tearing about the ring, his driver "lifting," whipping and "fishing" him as if in the last strides of a desperate race—and what is more he was "in it" up to the very last moment.

As the park fours were a superb collection, exquisitely appointed, so were the road teams really extraordinary for the power, size and pace at the trot they displayed. No better teams than the first three have ever been seen in any country.

Appointment classes generally were excellent, but as usual, the investigations of the judges produced results—especially in the pair-horse brougham class—which could be followed out on no plan of estimation familiar to the general public; while requirements, which in former years have been essential to acceptable harness percentages, were this year not indorsed—as was the case also in the Brewster prize competition. Of course these percentage arrangements may figure up every which way, but how any equipage can be anything but perfect or zero—where the values form part of a total of 100 points—does not appear. What right have judges to agree that, out of a possible total of 30 points, they will mark a vehicle at 15? Surely no such arbitrary appraisal is legal or fair? If the carriage is not right, it certainly must be wrong—and but two returns are possible—30 per cent. or zero.

Ponies in all sizes were very strong, and the near future, with its scarcity of desirable horses of full size, is about to bring to these sturdy little chaps the general recognition, not only from the world of fashion but from that of trade, which is their desert. As a toy we know our pony well—but the practically useful side of him we have never, through the ridiculous cheapness of our native horse of larger growth, been obliged to consider.

Hackneys were on view at their usual public task of capering about at the end of a white rein, in small and unimportant numbers. There were, however, several shown in the harness classes, and one or two in the saddle classes, which made the spectators—especially

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the "rail birds"—sit up. Mr. Stevens showed a really very fine level-going four-year-old in harness, and she certainly seemed to win the opening event of the show—but was placed only fourth—and there were others from Mr. Jordan, Mr. Cassatt, etc. To be sure they were from trotting-bred mares, and resembled their hackney sires not at all; yet to the latter must go the credit, since the breeders prefer it that way.

Trotters (breeding classes) were few in number and by no means a representative lot. In light harness they were splendid, as were the tardily-recognized pacers—the coming road horses of the country if signs go for anything; for while one may not fancy their rather ungainly gait—unless they trot when at a road rate, which most of them do—it is undeniable that the pacer is not only cheaper to acquire, but is much easier to drive, gets away quicker, and is generally a faster and better "brush" horse than the trotter.

French coachers were few in number, and moderate in quality. Thoroughbreds were unworthy special mention—as always at this show—and foreigners must wonder whether the trotting and thoroughbred breeding classes display a really typical collection of our native horses.

Saddle horses were very bad as a whole, a characteristic which has been general at all shows this year. Some few really well-mannered, well-formed, desirable specimens were on view, but they stood almost alone and, in not a few cases, were summarily sent out of the gate. Mr. F. V. Gooch, the English judge, made a capital impression the first day and, after his maiden effort, was hailed as a very Daniel—but such success proved but evanescent, and thereafter he was "haled" before a large professional and amateur jury which condemned his decisions in no measured terms. Never before, it must be said, has dissatisfaction been so general; and never before have so many inferior horses been in the ribbons. His deductions could not be intelligently followed, for, as the dealers said, he, as an exporter and quite liberal semi-annual buyer himself, does not buy and will not have the sort of animal he was constantly choosing for honors. If he only would buy such specimens, he could do so very cheaply in any auction mart or private sale stable. One of his selections was sold for $140; two others were bought as cavalry remounts, two others, when offered recently at auction, did not fetch a very moderate reserve—about $200 each; another, a double ribbon winner, was sold after the show for about $250; and meanwhile horses that had cost both dealers and owners thousands of dollars were turned down and "gated" right and left. Mr. Gooch apparently took great pains, and not only rode all his selections himself, but did so vastly better, in every case, than their original pilots—but even here his requirements were very variable, as sometimes he was very strict as to manners, and then again he was left in the ring with four selected horses, which, upon trial, not only would not back but had no other deportment of any decent kind, yet these four got the awards! and about twenty-seven others the gate!

This sort of thing is as absurd as it is unnecessary, and it is an insult to the intelligence of owners, dealers and exhibitors that the directorate of the N. H. S. longer persist in its extraordinary methods in respect to the saddle horse classes. At no other show is there ever any trouble. Americans judge, and that results are satisfactory is proved by the fact that exhibitors make few comments, but on the contrary pay willingly ever-increasing prices for choice animals suitable to our market. Allowing, for the sake of argument, that all America is wrong, and Mr. Gooch is right, what of it? He will never convert us to his views, and meanwhile incalculable harm is done all interests. Our taste in saddle horses may be diseased, but it is ours, and to attempt to overturn in a moment the work of years is as unwise as impossible. Native judges that are good enough for other shows are quite good enough for the National, and the general public and private protest against further experimentation—for which one of the directors who never showed a good saddle horse is said to be responsible—is earnest, and something the management will do well to heed.

It was well and truly said that there were a few horses entered in the "suitable-for-making-hunters" classes, which, had they been in the saddle divisions, would have swept the deck with Mr. Gooch as the official.

Cavalry horses and chargers were the usual nondescript collection, containing hardly one horse that an army buyer would select, or could purchase if he would. It is simply ridiculous to try to promote these displays if the contestants are to include all sorts of expensive animals—some costing over $1,500. Every such class should bear the condition "Any entry may be claimed, within fifteen

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minutes after awards are made, for the current price of cavalry horses (or chargers)." Then, perhaps, we should "get somewhere." There is no army buyer that will take stallions, three-year-olds, dock-tailed horses, (or mares save under great pressure), yet all these have been "in the ribbons" in cavalry classes at the Garden in this and other years.

"Horses suitable for making hunters" included "any old thing" that apparently was not of much account for any thing else, and therefore, as a forlorn hope, might be a hunter, but escape that not unimportant part of a hunter's accomplishments—jumping. There were some very choice specimens, however, but surely it is not fair to include in these collections champion "jumpers" which have already many times scored perfect not only over fences but on "make and shape;" others which have been campaigning the shows all year, and regularly winning, or going close up! About all the ribbon-bearers in these events had thus successfully performed, and the bona fide neophyte had no chance on earth.

Jumping and hunting classes, as a rule, were only mediocre in performance—due principally to the unfair fences provided—but as types, there were many splendid specimens on view. The genuine "hunters" had barely a chance against the regular trick "ring jumpers" which are used to all kinds of strange contrivances in the way of fences. The white painted bars, with the christmas-tree decorations, and (finally) green hurdle-backing which the hunters imagined that they were expected to eat, either "before or after taking" the leap, were most disconcerting to these sorely-tried quadrupeds and as the phrase runs what they did to the contestants "was a-plenty." They were also forced to circle the arena "left about," or leading with the left leg—so that any "right-handed" horse (they are as different in this respect as men), was at great disadvantage; and many a bad performance was caused by trying to get the familiar foot in front—generally just too late. Not only were these green whiskers on the top-rail something like eight inches above the actual obstacle (so that a horse had to "jump big" which is a great fault in a genuine hunter) but finally they tucked another bar behind the herbage which was quite invisible to the performer. Occasionally by way of change, an in-and-out was also introduced—but this useful and really fair American hunting fence was all too seldom in evidence.

In what practical particulars have we progressed in our horse shows since their inception seventeen years—is it?—ago? The answer must be that, so far as "type-for-purpose" goes—which with "market value" furnish the only true criterion of merit, we have hardly moved any appreciable distance. In general equipments we have made enormous strides; in handling and development, generous advance; the general equine average is extraordinarily high—higher than in any other country. But we are no nearer decision as to what must be accepted as a typical "gig" horse, brougham horse, phaeton horse, runabout horse, ladies' hack, saddle horse, cob, pony, etc., etc., etc.—which all represent the really vital issues—than we were all those years ago.

Beyond noticing the extremely large and strong field which paraded for the Waldorf-Astoria Cup, there is no special feature which calls for mention in a brief review of this sort. The championships were noteworthy; and that for horses not over 15.2 hands was most interesting from the remarkable fact that the winner, Mr. T. W. Lawson's Glorious Flying Cloud, gained his eligibility to enter upon this most crucial test by winning a class for "novice" harness horses—thus advancing in two strides from obscurity to widespread fame. We have seen no better horse, and many were the regrets that Mr. Lawson had not been present and driven this typical gig sort in the Waldorf-Astoria event. An extraordinary career is in store for this horse, if he stays well. He is the trotting stallion Captain Barr, and cost Mr. Lawson $7,500 at auction. Glorious Red Cloud won the championship for horses over 15.2. Dr. J. L. Wentz's pair, Lord Brilliant and Lord Golden, won the championship for pairs not over 15.2 (although why they beat the Lawson pair, Flying Cloud and Whirling Cloud, is not clear); while Mr. F. J. Gould's well known Sandringham and Burlingham captured the honors in the large champion pair class; the saddle horse championship went to Mrs. W. Stanton Elliott's chestnut gelding Flashlight; Messrs. Hart Brothers' roan gelding Richmond won the champion ribbon for heavyweight hunters; Mr. C. H. Hurkamp's chestnut gelding Kinloch that for middleweights; and the Chestnut Hill Stock Farm chestnut gelding Rattler, the token for the lightweights.

An extremely odd and significant feature was the fact that so many stallions were winning all along the line, single, double, four-in-hand, etc., especially in the classes where size and substance were called for

F. M. Ware.

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REVIEW OF THE FOOTBALL SEASON

THE EASTERN UNIVERSITY SEASON

THE task of him who would undertake the rating of the first dozen eastern college football teams of 1901 is less complex than in many seasons past. In the writer's judgment, the proper order would be about as follows:—

1—Harvard	7—Annapolis
2—Yale	8—Syracuse
3—Princeton	9—Columbia
4—West Point	10—Pennsylvania
5—Cornell	11—Dartmouth
6—Lafayette	12—Williams

Harvard, with a heavy, well-balanced, speedy eleven, working to the limit an attack of exceptional power, and, because of greater physical strength, able to repel the Yale tackle-back formations, is in a class by herself this year, just as Yale's team was in 1900. In her two great games she scored 55 points to her opponents' 6; rushed the ball (scrimmage play only) 728 yards to 109, and earned first down 71 times to 5.

The Harvard eleven, the heaviest of the year, met all the requirements of a first-class all-round team; the men were well instructed in the rudiments, carefully drilled, and eleven men went into every play in such unity that four or five were constantly pulling the runner while the rest of the team pushed him. As to speed they closely followed the David Harum axiom, and did to the other fellows what the latter would like to have done to them, and *did it first*. The natural tendency is to hail each season's winner as the "greatest ever," so that conservatism, if nothing else, serves as a restraint upon the present scribe in thus comparing present with past elevens; but it is certainly not too much to say that this year's Harvard team, adapting from Yale and Pennsylvania the most powerful system of attack yet devised, left nothing to be desired in the way of its execution, and put up a record as the strongest offensive team ever sent out of Cambridge.

YALE'S team of 1900 illustrated the advantages of heavy weight formations starting from the back field; this year's eleven showed the disadvantages of relying upon that same system without the necessary heavy fast backs and tackles to force the play through. Yale's two tackles and four backs averaged 15 pounds lighter than those of 1900, hence, obviously, their inability to produce corresponding results when pitted against greater weight and equal agility and strength. In other words, the lesson of 1901 football is that so long as the present systems of play are permitted under the rules, the team with the heaviest back field and tackles, and the best unified mass formations will win. Under the Yale system, extra weight is most effectively employed in the two tackles and full-back. These three men should, taken together, average at least 190 pounds to do the best work. In the old days of more open play the ideal tackles of the Hillebrand, Lea, Murphy, Newell, Winter type approximated 175 pounds, and full-backs, such as Baird, Brooke, Butterworth or Young, 160 pounds; but under modern methods, men of these weights would find their usefulness much reduced. It is, too, far harder nowadays for a light, fast team to win from a heavier, physically stronger team than it used to be.

Yale's attack has been uncertain, though powerful at times, throughout the year. Both Princeton and Harvard got the charge on her, but lack of strength and prominence of injuries prevented Princeton from doing what Harvard so easily accomplished, viz.: the breaking up of the plays before they were well under way. It was confidently expected that the Yale team would show substantial improvement in the week following the Princeton game, but it did not. In fact, its style of play did not do it justice. Its defensive work was equally strong, but its attacks, considering them in their initiative rather than after they met the fiercer Harvard resistance, were clearly below those of the earlier game.

PRINCETON squad, mostly new or inexperienced men at the start, developed satisfactorily at first, learning rapidly and exhibiting a capacity for scoring which promised well. An easy schedule left the defense untried, however, until the Lafayette game, when its weakness led to a concentration of coaching effort upon it. The attack immediately suffered, and wholesale injuries retarded the further development of the eleven after the Cornell game. The result was that a team, not up to the Princeton standard, was squarely beaten by a better Yale team (of about the average at Yale, but much below the 1900 eleven) which, in turn, was entirely routed by an unusually strong Harvard team.

The Princeton eleven never succeeded in "getting together," perhaps because of the irregularity of the line-up. Co-operation has rarely been more lacking than in this otherwise promising team, and though it invariably played better in the second halves of its matches than in the first, it reached only the borderland c

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being a first-class team. In the Yale game, the team was not run to the best advantage. The kicking policy was adhered to much too long and the latter part of the second half was reached before Princeton set a good running game going. This she might have employed to much better advantage earlier instead of kicking so often on the first down, for it is hardly necessary to observe that while she was retaining the ball, Yale could not have been gaining ground with it. But mistakes, or the absence of them, are part of the game, and Yale, making fewer errors, both in policy of play and handling the ball, increased thereby her margin of victory.

In the Yale-Princeton game, Yale rushed the ball (scrimmages only) 206 yards in 69 rushes, an average of 3 yards; Princeton carried it 93 yards in 29 rushes, an average of 3.2 yards. Yale earned first down 26 times to Princeton's 10, and her punts netted her an average of 34.9 yards to Princeton's 34.4, although DeWitt's punts were longer in the clear. In the Yale-Harvard game, Harvard made 87 rushes for 337 yards, an average of 3.9, and Yale 19 rushes for 42 yards, an average of 2.2. Harvard earned first down 31 times and Yale twice. In punting Harvard netted 36.6 yards average and Yale 28.4.

Cornell had the best team in her history, although it averaged in weight about ten pounds less per man than Princeton or Yale, and about twenty pounds less than Harvard. What it lacked in weight, however, it made up in strength, speed, and a good system of play. A hard, well-varied attack, cleaving the line of heavier opponents instead of trying to push it back, and giving the preference to runs between tackle and end, never failed to gain substantial ground except in the second half of the Princeton game, when the latter retained the ball and did most of the ground gaining. In the first half of this game, rushing honors were easy; in the second half, Ithacan statistics show 200 yards for Princeton to 65 for Cornell. Against Pennsylvania Cornell gained with the ball in hand 347 yards, an average 4.6 yards, to Pennsylvania's 150 yards, average 2.5 yards. Cornell earned first down 29 times, Pennsylvania 18.

West Point also had the best record in her history, so far as scores go, for she lost to Harvard by a single touchdown, tied Yale and Princeton, beat Pennsylvania 24–0 and wound up with a victory over the Navy 11–5. Yet a deeper analysis of conditions leads to the conviction that in the final stages of playing form Harvard was, at least, four touchdowns better, Yale two and Princeton one; for Harvard faced West Point in the experimental stage, Yale in the depths of a severe slump, and Princeton when weakened by five substitutes. West Point's real test came in the Navy game, when, thanks to the individual brilliancy of Daly, she won, although gaining less ground and showing rather poorer form as a team than the Navy.

In this game the Army rushed the ball (not including running back of kicks) 205 yards as against 278 for the Navy and earned first down 15 times to the Navy's 28.

Lafayette's team was one of the strongest in the colleges, and as well coached as any. Her schedule was unusually poor, the games against Syracuse and Princeton giving her about the only chances to show her capabilities. In the first half of the Princeton-Lafayette game the Tigers had as hard a rub as they experienced at any time during the season. Lafayette was heavy and exceptionally strong in the center trio, had two aggressive tackles, one good end, and two brilliant heavy backs. Dr. Newton's use of guards-back was equal, so far as concerted action goes, to any execution of it by former Pennsylvania teams.

Annapolis was quite the equal of Columbia, and, indeed, rather a shade better, for the Navy boys came very fast after November 20th, and the team which faced West Point would have made it hot for anybody. As a team, in combination play, it was a distinct success. The men got together better than any other combination playing football, save Harvard and Syracuse.

Syracuse turned out a team which, in some respects, was the most remarkable of the year. It was the only successful light weight eleven. It weighed far less than Pennsylvania's, but possessed such amazing speed that its complex attack was often carried well into the enemy's country before the latter could locate or reach the runner. Much of the success of the eleven is due to the remarkable quarter-back and ends, than whom few better are to be found. In the game against Columbia, which Syracuse won, 11–5, they showed to best advantage. The team also beat Brown 20–0, and held Lafayette 0–5.

Columbia had a see-saw season, with trying changes from tackle to tackle, new men con-

(*Continued on page* 499.)

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THE GAME FIELD

ONCE again the question of "Trap amateurs and professionals," as good old *Forest and Stream* calls them, is up for discussion, and that paper, as usual, has something practical to say. It claims that the professional, the paid agent of the manufacturer, has a distinct advantage. I should say he had! Furnished with the best of tools, an elastic expense account, in fact given money and every other lawful incentive to get into tiptop form and remain so, it is not strange that the professional usually wins the lion's share of the plunder. The only thing he can lose is prestige with his employer, possibly his job, and being a professional, he treats the whole task as so much paid labor and behaves accordingly. Frequently traveling all over the country, shooting upon all sorts of grounds and under all sorts of conditions, he soon acquires great wisdom concerning the art. That any strict amateur can regularly defeat, or even hold him is a delusion cherished only by a few amateurs who are very fond of themselves. When any well-regulated man, who is risking nothing but the remote chance of a call-down from his house, cannot win a piece of the money, either he is a duffer at shooting, or he has struck a new brand of strictly amateur company, the like of which I have never yet beheld. No ordinary gunner, gun he ever so gunfully, can hope to average with a man who makes a regular, or even a partial business of trap-shooting. If the amateurs could hold their own with professionals who make a business of the sport, there would be no call for barring, handicapping, or any restriction whatever. That they cannot, has been plainly proved.

To my notion, the best way to treat the out-and-out "pro," the man who is paid to exploit firearms and their accessories, is to let him shoot for birds, or targets only. This gives him every chance to advertise himself and his wares at the expense of the proper party—his employer. He isn't out a cent, while he may be directly, or indirectly in to a considerable amount, for under the conditions he should be able to shoot his prettiest and as a natural consequence, do what they all want to do—*i. e.*, sell whatever he is paid to exhibit. To say that such a man should be allowed a chance to get a piece of the money, is equivalent to saying that he should be paid twice for the one piece of work, which would be unreasonable. If he can't make enough salary in his business, that is a matter which concerns himself and his employer, and is no concern whatever of men who shoot for love of sport. The claim that the presence of crack professionals helps the gate by drawing a crowd is true, but that is no argument in favor of the "pro" being paid for doing it.

While the agent of a sporting goods firm almost invariably is a gentleman and a fine fellow, his real object is to get before the crowd, to attract attention, and to sell goods. For this he should be afforded every privilege, short of gobbling the money of men who have no business interest to further at the traps.

THE notable increase of deer in Vermont is valuable evidence in behalf of properly enforced protective legislation. It also goes to show how easy it would be to have an abundance of deer in other long-settled parts of the country. Proper protection will do much more than most people imagine. Think of Vermont having so many deer that there is talk among the farmers of applying to the Legislature for protection against them as a nuisance. Yet such is the fact.

SOME western sportsmen are worrying over the shipment of live quail from the Indian Territory. One, who has written to me, more than insinuates that a big lot of live quail shipped from there, and in crates marked "strictly for breeding purposes," never produced a thing more than a pleasant sensation under the belts of a lot of Pittsburg banqueters. If this be true, an investigation is in order, for quail for breeding purposes is not necessarily the same thing as quail for begetting good fellowship.

A CORRESPONDENT asks how to plant wild rice with a view to establishing a feeding-ground for ducks. The method is a simple one, but two important points must not be overlooked—the bottom should be mud, permanently covered with water not much less than a foot deep, nor more than six feet—and the sowing should be done after the ducks have all gone south, otherwise they will surely locate and eat the seed. Once fairly established, the rice will occupy every foot of available ground. I have planted several waters in Ontario at different times and there were

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no failures—in fact, there will be none if the work is properly done and at the right points. The rice usually is gathered by Indians in canoes. It is carefully dried, and in this condition it will float like so much chaff. Put the rice into coarse linen bags, sink the bags in water the night before sowing and let the rice soak until wanted. Scatter it on the water. The first time I followed these directions was long years ago, and rice still flourishes in spots I then planted. The soaking is to make the rice sink where wanted. After the first crop there is no further trouble, as it is self-seeding. Ducks are very fond of it and will not fail to find it if the growth be extensive.

EDWYN SANDYS.

THE NEW YORK AUTOMOBILE SHOW

NO lover of a particular type or breed of horse is readier or more ardent in his defence of and devotion to it than is your enthusiastic automobilist in his defence of and devotion to the particular propelling power which enslaves his fancy and drives his carriage. While electricity does not lack its advocates, they are of the class that cares naught for speed, nor for wanderings far from the city's crowded streets—and recharging stations. The fight is therefore between steam and gasolene. Electricity is merely a dignified spectator, but one that ultimately may develop such prowess as not only to engage in the struggle, but drive both of the present rivals off the field, or, rather, road. This, however, is not of the immediate future. Just now it is, steam vs. gasolene.

A summary of the 139 vehicles on exhibition in Madison Square Garden showed 58 steam, 58 gasolene and 23 electric. But there were honors enough for all.

While one of the notable home developments of 1901, the White, was absent, the Toledo, the Victor, the Lane, the Reading, and the Foster steam carriages were in evidence, to demonstrate that the practical advocates of "the most flexible power" had not slumbered during the year. Each of these carriages has evolved ingenious devices to make man more completely the master. Details would be unreadably technical, and lead inevitably to a discussion of water tube boilers vs. fire tubes, with which makers and users of steam vehicles are just now greatly concerned; recent performances of the water tubes having awakened interest far out of the common.

It is enough to say, therefore, that the carriages named, not to mention the widely famed comobile, place the future of the steam vehicle beyond dispute. One of the most serious errors of commission, that of building the vehicles too light, has been recognized, and generally corrected. Other things being equal, or nearly so, it is a fairly safe rule, when in doubt, to choose the heavier vehicle. The heaviest steam carriage exhibited weighed 2,000 pounds, the lightest 800 pounds. In price, $750 was the minimum, $2,000 the maximum, and it is an odd circumstance that the price, generally speaking, works out at $1.00 per pound.

While the steam carriage is essentially an American creation, the gas-propelled vehicle is as essentially a French institution, and if steam has internal questions of moment, gasolene has them many times multiplied. Thus, the steam people are as one in the use of lever or tiller steering, but of the gasolene carriages displayed in Madison Square Garden, twenty-six were steered by wheels and thirty-two by levers. Incidentally, America is the only country in which levers are countenanced. Wire wheels or wood ones, the position of the engine, whether vertical or horizontal, the number of cylinders, the method of transmission, the method of ignition—all these and many more are points on which men have differed; the Automobile Show served as evidence that they are no nearer an agreement.

As distinct from adaptations of horse-drawn vehicles, gasolene, more than either of its rival powers, has been responsible for the creation of automobile types. The long, tapering, powerful-appearing touring car, with its *tonneau* body, is an example; the small, low, compact knockabout or motorette is an instance of the other extreme. The runabout is, however, the most popular type, regardless of propulsive power, but the thirty-three displayed at the

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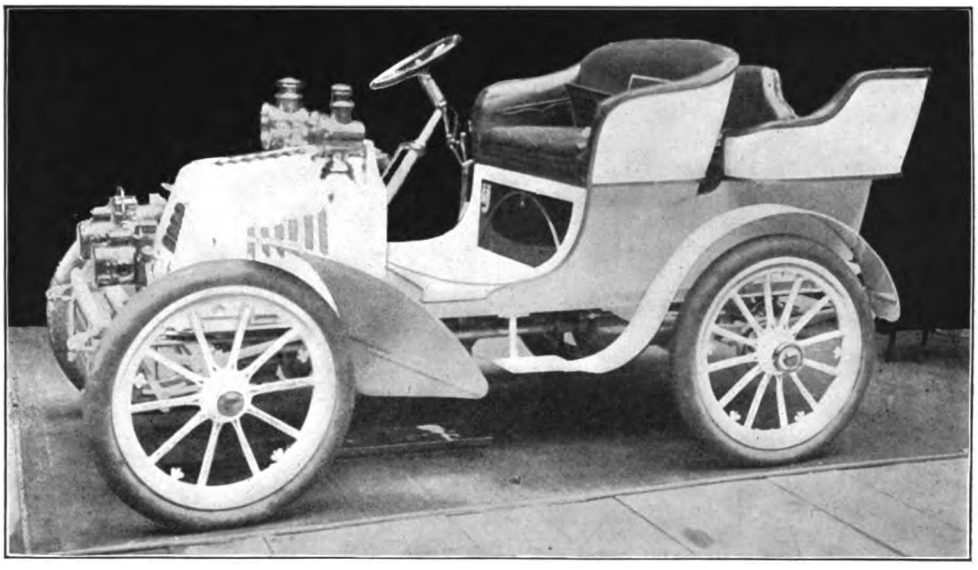

PEERLESS GASOLENE AUTO MOTOR CAR—COST, $2,200.

show indicated wide license on the part of the designer, particularly in gasolene runabouts. There was equal disregard of prototype in gasolene phaetons—a big 2500-pound Gasmobile, and an equally formidable 1800-pound Haynes-Apperson, being for instance, styled phaetons.

Of the touring cars, the Robinson and the Gasmobile were certainly luxurious enough and sufficiently Frenchified to make it unnecessary for purchasers to go abroad for such vehicles, while in Americanized versions, the Packard, the Peerless, the Winton and the DeDion, though possessing possibly less aggressive noses, did not lack individuality and style.

Although fewest in number, the electrics were in greatest variety. One single exhibitor (the Electric Vehicle Co.) showed phaeton, runabout, stanhope, surrey, brougham, victoria, cabriolet, coach, hansom and touring

Photographs by T. C. Turner.

TOLEDO STEAM RUNABOUT.

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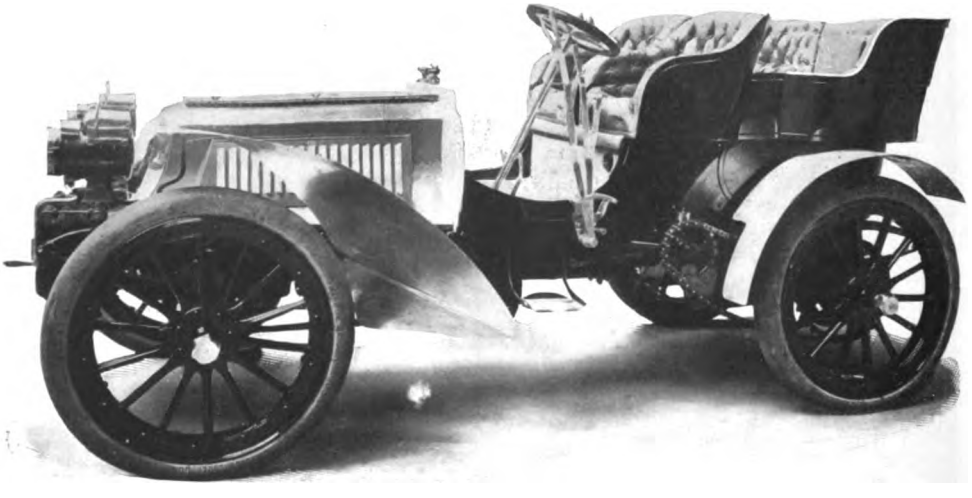
GASOLENE AUTO-CAR DOS-A-DOS OR GOLF TRAP, SPEED 8 TO 21 MILES—COST, $1,300.

car. It was in electrics only that a closed carriage of any type was to be seen—an observation which will serve to show how circumscribed are the vehicles to which steam and gasolene have been applied. It is high time they developed a few types of closed carriages. The Columbia, Baker, Waverley and Fanning electric runabouts were fetching vehicles. Sightly and clean and noiseless in operation, the electric runabout is, for city or suburban use, the ideal carriage. The wonder is that its popularity is not greater.

The one element to bring all classes of automobilists to a common level is tires; and a matter of great moment it is. With the cost of repairing punctures frequently reaching five and ten dollars each puncture, to say nothing of limited durability, it may be easily understood how important is the subject. During the year it seemed as if the tide was turning toward solid rubber tires, but of the 137 vehicles shown at Madison Square Garden, only six were equipped with these tires, and these six were heavy electrics. Of the remainder, 96 were fitted with single tube pneumatic tires, and 35 with double tube detachable tires. It is a rather curious condition that while solid tires are the rule on horse-drawn



GASOLENE AUTO-CAR OF AMERICA THIRTY-FIVE HORSE POWER—COST, $6,000.

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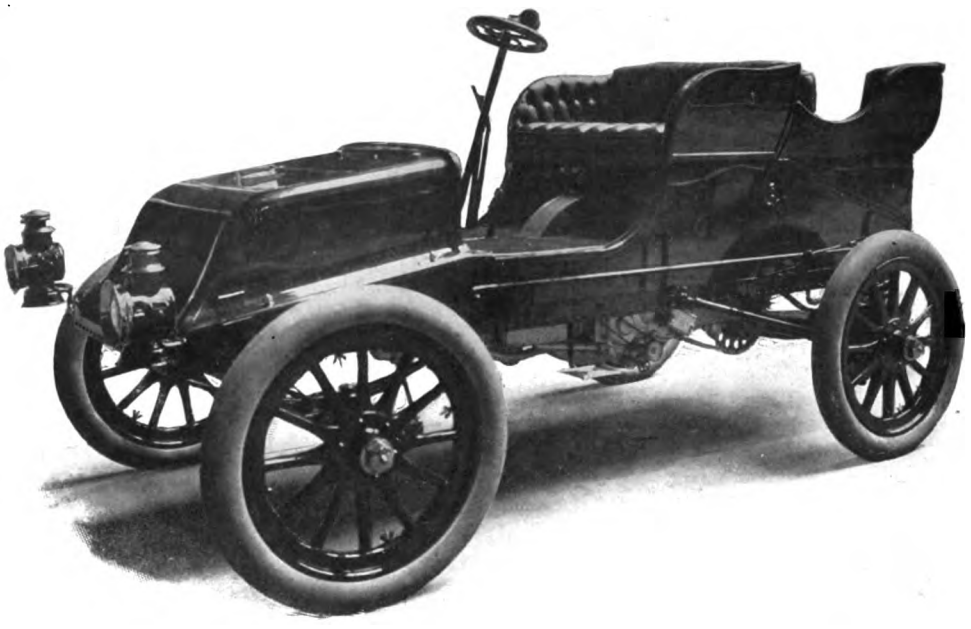

WINTON GASOLENE NEW TOURING CAR, FUEL CAPACITY 150 MILES—COST, $2,000.

LOCOMOBILE (STEAM).

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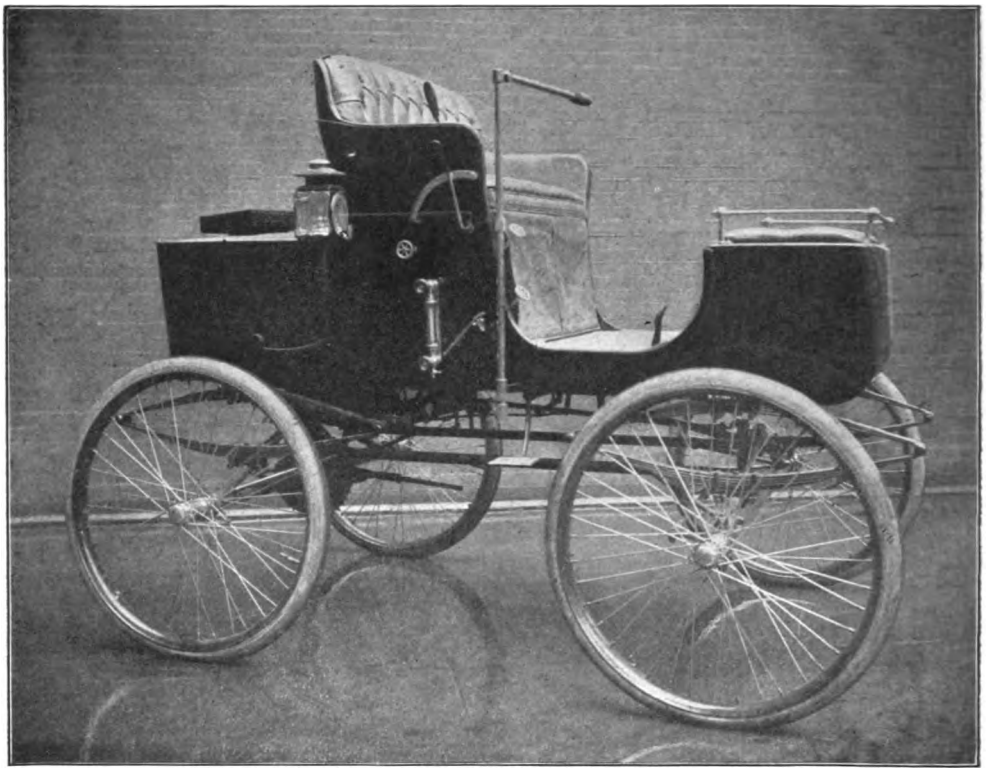

THE FOSTER WAGON (STEAM).

vehicles, the automobilist, using a much heavier carriage, will have none of it. With him it seems a case of pneumatics or nothing, and truth to tell, some of the pneumatics he is using are pneumatics in principle rather than in practice: the walls are thick, heavy and unpliable, and the air channel is so small that its inflation does not leave any considerable hole in the atmosphere. A little air is better than none, appears the accepted idea, and the automobilist is content to take the risk of puncture for the added comfort and buoyancy that the air cushion affords. Although many so-called puncture-proof tires have been presented to him—several were displayed at the show—he is viewing them with no more favor than did the bicyclist to whom modified adaptations were offered years ago.

Mention of the bicyclist recalls that the presence of only five motor bicycles and one motor tricycle at the Garden created some remark—but the wonder is not that there were so few, but so many, since it is very plain that cycles are for cycle and not automobile shows. As a commercial success, the motor tricycle may be dismissed as unworthy of consideration. It has been completely routed by the motor bicycle; and the motor bicycle is not of or for automobilists, in the accepted sense of the term.

R. G. Betts.

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(Continued from page 492)

stantly in process of development and much uncertainty as to the line-up in every game. The wonder is that the team did so well. Its chief credit this year lies in the game with Yale; its victory over Pennsylvania, 11–0, was hollow; over Annapolis, 6–5, still more so, and Harvard, 0–18, Syracuse, 5–11, and Cornell, 0–24, thrashed Columbia soundly.

THE less said about Pennsylvania's team the better, for so unsuccessful an one has not been seen there since 1890. It was not merely lack of weight that caused the trouble, for other and better teams have also been light, but the hide-bound system at Pennsylvania was not easily adaptable to the physical conditions, and the rudiments of the game were comparatively unknown to the men; the tackling, for example, being simply atrocious.

DARTMOUTH'S season was a notable one. After squeezing out a doubtfully-earned victory over Williams, she went from strength to strength, scoring twice on a relaxed Harvard 'Varsity and smothering Brown 22-0, her first victory since the series was inaugurated in 1894. The material was rather better than in recent years, and the coaching of Mr. McCornack was admirable.

Williams, too, had her best team in ten years. She had a lot of spirited and determined players, a good coach, Mr. Hazen, an excellent adaptation of current up-to-date systems of play, and the best team work of any of the minor elevens, except Syracuse. She held Columbia to 0-5, Dartmouth 2-6, and then beat Wesleyan 11-5, and Amherst 21-5 in her championship series.

Brown is shut out of the first dozen for the first time since the advent of Hopkins in 1893, almost the entire 1900 team being lost this year. The material was light and inexperienced though plucky, and Mr. Robinson had an unenviable task in trying to evolve a strong eleven. The worst calamities were Princeton 0-36, Harvard 0-48, and Dartmouth 0-22.

Wesleyan made a fine finish after a most unpromising beginning, but the rally came too late to save two of her important games—Williams and Dartmouth—although Trinity was disposed of (11-0) and Amherst, 15-11. Lack of enthusiasm and too much dependence upon one man are two of the reasons, perhaps, for early non-success.

Amherst made the best start of any of the smaller New England teams, and looked an easy winner in her class. The material was good, Mr. Swain's coaching thorough and intelligent, and, special attention having been given defensive work, the showing against Yale and Harvard was strong. Then the attack was worked up, and so much belated coaching crowded upon the team on the eve of its championship games that the men were harmed rather than helped.

THE ALL-EASTERN COLLEGE ELEVEN OF 1901.

Graydon (Harvard), full-back.
Kernan (Harvard) and Morley (Columbia), half-backs.
The latter to be captain.
Daly (West Point), quarter-back.
Bachman (Lafayette), center.
Barnard (Harvard) and Hunt (Cornell), guards.
Cutts (Harvard) and Blagden (Harvard), tackles.
Davis (Princeton) and Bowditch (Harvard), ends.

SECOND ELEVEN.

Cure (Lafayette), full-back.
Chadwick (Yale) and Weekes (Columbia), half-backs.
Brewster (Cornell), quarter-back.
Holt (Yale), center.
Lee (Harvard) and Mills (Princeton), guards.
Goss (Yale) and Bunker (West Point), tackles.
Campbell (Harvard) and Swan (Yale), ends.

THE captaincy of this team narrows down to two men, namely: Morley or Daly, either of whom would fill the place admirably. Morley is selected because of his indomitable physical force, his excellent judgment and his remarkable ability to get the maximum amount of work out of any team over which he has control. It will be observed that this team, while not burdened with superfluous avoirdupois, possesses sufficient weight to enable it to carry out successfully the most recent formations under the guards-back or tackle-back system. At the same time the men selected are all conspicuous for aggressiveness and speed, and are sufficiently strong and sound to maintain a fast pace throughout the full championship period. The kicking would be admirably cared for by Daly, Morley and Kernan, while both Daly and Morley have more than once proved their ability undauntedly to drop goals from the field in the face of a fierce-charging line; the line men possess both speed and strength enough to jump their opponents into an oncoming tackle-back play before it could reach the line.

ENDS.—It is to be doubted if a speedier or physically stronger end than Davis has been seen on a college football field in many years. He is a born sprinter, a fierce, determined tackler of the Hinkey type, strong enough to smash the most formidable interference when on defense, or to box a giant tackle when on offense. I regard him the best all-round end of the year, and with five or six other eastern ends little below him, it is extremely difficult to decide which to choose. One would be justified in selecting as running mate to Davis, either Bowditch or Campbell

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of Harvard, or Swan or Gould of Yale, Henry of Princeton, or Farnsworth of West Point. Bowditch is speedier than any of the others except Henry, and is so much harder to put out of the play that preference is given him on the first team. Campbell and Swan are chosen for the second team because they apparently come nearer to the well-balanced ability of the other men than do Gould, Henry and Farnsworth. Gould is, perhaps, the best offensive end playing football, and his all-round game during the fall has been very fine, but owing to his poor physical condition, he could not do himself full justice in the big games, although one must not infer from this that his playing against either Princeton or Harvard was not first-class. He lacks the speed of the other ends, however. Henry is relatively as strong in defense as Gould on offense, but his offensive playing is not as good. Farnsworth is one of the best men on the Army team, especially for offensive work. He rarely failed to box his tackles completely in the important games played by West Point.

O'Neill and Wilbur of Williams made a fine pair of ends, the latter being especially hard to pass. Taussig and Tydeman were Cornell's ends, but the former was severely retarded by injuries and hardly equalled his last year's form. Other good ends were Gardiner of Pennsylvania, one of the few men on that team who knew how to tackle, Brown of Lafayette, a strong defensive player, Ackert of Wesleyan, Blanchard of Amherst, Bartlett of West Point, and O'Connor of Dartmouth. Boland and Weir of Syracuse were also great players.

TACKLES—Harvard's pair, 196 pounds apiece, bulls at rushing and bulwarks in defense, hold the palm. Cutts is the best tackle at Harvard since "Ma" Newell won all hearts. He is fast, strong, persistent, versatile. Yale had a good pair in Goss and Hogan, the former being slightly better all-round. Hogan's offense was, however, very good indeed. Princeton turned out one good tackle in Pell and one fair one in DeWitt. The gains through Pell were not his fault, but rather due to poor backing up by the rush-line back; considering his physical condition, his game against Yale was admirable. DeWitt is a brilliant runner and fair punter, but is not a tackle. His position should be guard. Bruce of Columbia was a strong offensive player, and Webb of Brown was the best man on that team. Bunker of West Point was a good line breaker, fast in going down on kicks, and an indefatigable worker. Adams of Annapolis, Lueder of Cornell, Lamson of Lafayette, Hatch and Jones of Williams, Place of Dartmouth, Newton of Wesleyan, and Morse of Amherst, also deserve honorable mention.

GUARDS—Not so completely filled as in 1900, but there were some very able ones nevertheless. Harvard's were excellent, Barnard having a shade the better of it, and in Hunt and Warner, Cornell was nearly as well equipped. The former is one of the coming players, strong, alert, a fine ground gainer. Mills of Princeton played the best game of his career, though crippled in the Cornell and Yale games with a broken Achilles tendon. Dana's injuries made it impossible to maintain his usual good game.

Although Yale's guards were good, they were relatively the weakest part of her line. Olcott, a splendid player, was so much under weight that he could hardly hold his own, and Hamlin was a bit below the Yale standard. Penn's guards were too light to be very effective, though Bennett did some strong individual work at times. Lafayette turned out a first-class pair in Ernst and Trout, the former being slightly the better. Both are fine ground gainers and rank very high on the list. Lawrence of Williams, Silliman and Pike of Wesleyan, Belknap of the Navy, and Goodspeed of the Army, were valuable men.

CENTERS—There is no one in the class with Bachman this year. He handles his 195 pounds like an antelope, is sure in snapping, lightning fast in charging, and gets down the field like a breeze. Of the others, Holt of Yale and Fisher of Princeton, are about on a par, steady, careful, strong, though lacking in brilliancy. Both should show improvement in another year. Kent of Cornell made the most of his light weight but would not have been able to have withstood the plunges of the heavy Harvard or Yale attack. Montgomery of Wesleyan was very active and a good tackler. Green of Harvard who fully held his own with Holt, put up an amazingly fine game for a man called upon, without previous experience, at the last moment to enter so important a contest.

QUARTER-BACKS.—A puzzle to class them. More good ones for this position than for any other, save end. Daly, Brewster, DeSaulles of Yale, and Marshall of Harvard, are all in a class; with Freeman of Princeton, Howard of Pennsylvania, Scudder of Brown, Moore and Jayne of Williams, Daniels of Amherst, Witham of Dartmouth, and McNair of Anna-

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polis, not far behind. Indeed a poor quarter-back was a *rara avis* last fall.

Daly's work was the best in his career. He never punted (*e. g.* average 40 yards against the wind in the Navy game) nor drop-kicked so well for Harvard; his generalship, running back and interference were of the highest order. Even allowing for luck, and he certainly had that, his success entitles him to first place, for it is the player who gets there which counts. Brewster punts as well as Daly and is the most deadly interferer of all the quarter-backs of the year. As he is physically stronger than DeSaulles and much less liable to fumble or to get hurt, he is the safer man for second choice. DeSaulles made a brilliant record for Yale and except for the reasons named would be the choice. Marshall's fine game against Yale put him up in the first division.

HALF-BACKS.—Kernan, brilliant, fast, heavy, the longest punter (save Cure) of the year, a good helper, a strong rush-line back, is first of the season's backs. Morley, stocky, muscular, not to be denied his two yards help or no help (and three times two means six, or a first down, you know!) able to repeat indefinitely, the best interferer in present day football, a forty yard punter and a drop-kicker who can actually score—here is a running mate for Kernan who will insure us steady progress when our team starts its offense. Weekes is far better than in 1900, because he is less dependent upon Morley. His broken field running, line plunging and tackling are all of the highest order. Chadwick is a grand player, although not physically able to turn out his best work in Yale's big games, but as a plunger who can keep his feet, run low and hold the distances he gains, he has few equals. Graves, of Williams, and Platt, of Lafayette, would probably have made any team in the East, and they, with Ristine of Harvard, are out of the blue-ribbon class simply because there is no room for more.

Purcell and Coffin, Cornell's pair, also rank up in the same company, but seemed to lack the staying qualities of the others. McClave of Princeton has no superior as a rush-line back in defensive work and is a hard plunger as well, but has fumbled badly this year. Reynolds of Pennsylvania, Corscaden of Wesleyan, Watson of Williams, Brown and Patterson of Dartmouth, Casad of West Point, Freyer of Annapolis, and Biram of Amherst, were all excellent players, as were Brown and Henderson of Syracuse.

FULL-BACKS.—There were several giant plungers of the new type, any one of whom would be good enough for our first team. Graydon of Harvard is a fierce line plunger, excellent interferer, carries his opponents from one to ten yards after being tackled, and is always "on his game." Cure of Lafayette, 193 pounds, is a hard plunger and the longest punter in the colleges. Davidson of Pennsylvania, 186 pounds, did phenomenal work almost unaided. He has no superior in offensive or defensive work in his position. Inglis of Wesleyan is another full-back who, barring his injuries, would have reached the top of the ladder. If he had played for one of the big universities his praises would have been sounded from Maine to California. Bates of Brown is a full-back of the good old style and was punting in ideal fashion when injuries forced him from the game. Peabody of Williams, Knibbs of Dartmouth, Schoelkopf of Cornell, Nichols of Annapolis, and Graves of West Point, are all players deserving recognition.

There are in fact, many players of the Trinity, Lehigh, Union, Hamilton, Bowdoin and other teams of excellent quality, whose work during the 1901 season entitles them to warm commendation and encouragement.

SCORES FROM NOV. 16 TO END OF SEASON.

Yale, 12, Princeton, 10; Harvard, 22, Yale, 0; Cornell, 24, Columbia, 0; Cornell, 24, Pennsylvania, 6; West Point, 24, Pennsylvania, 0; Columbia, 40, Carlisle, 12; Dartmouth, 22, Brown, 0; Pennsylvania, 16, Carlisle, 14; Williams, 21, Amherst, 5; Georgetown, 17, Virginia, 16; Virginia, 23; N. Carolina, 6; Virginia, 23, Sewanee, 5; Georgetown, 22, Lehigh, 0; Tennessee, 12, Georgetown, 0; Tulane, 22, Louisiana Univ., 0.

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THE MIDDLE WESTERN UNIVERSITY SEASON

THE season of 1901 was the most impressive in the history of Middle Western football. The only undefeated teams are Michigan and Wisconsin, in a class by themselves. Unfortunately they could not meet.

ALL-WESTERN COLLEGE FOOTBALL TEAM OF 1901.

Driver (Wisconsin), full-back.
Heston (Michigan) and Larson (Wisconsin), half-backs.
Weeks (Michigan), quarter-back.
Page (Minnesota), center.
Stahl (Illinois) and Flynn (Minnesota), guards.
Curtis (Wisconsin) and Shorts (Michigan), tackles.
Snow (Michigan) and Juneau (Wisconsin), ends.

Michigan scored 501 points against opponents' nothing, which entitles them to be ranked with the best teams in the country on offense, and the fact that the total number of first downs gained by Chicago, Beloit and Iowa

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against Michigan were only seven, it can readily be seen that the defensive department was not lacking. The offense was greatly aided by the kicking of Sweely, whose punts averaged forty-two yards for the last six games. The back field was very fast and the ends and tackles very strong, while most of the ground gained was by the tackle-back formation. The team averaged 178 pounds.

WISCONSIN had a veteran squad and consequently had only to develop team play, which they did so well that the 1901 eleven may be recorded as the best to have represented Wisconsin; it ranks with the foremost teams the West has ever seen. The back field was exceptionally fast and worked in perfect harmony with the line men; they, too, were strong in the end and tackle positions. Their general style of play resembled that of Princeton, except that the backs stood closer to the line; most of their gains were made by the mass on tackle and by end runs, which were executed with a great deal of perfection. The punting of Driver, the fullback, was very strong and the team scored many points by his well executed drop-kicks. Wisconsin played her half-backs behind the tackles on defense, whereas the majority of teams played them on the line. The tackling of the team was low and sharp, and their plan of defense was well formed. The average weight of the team was 172 pounds.

THERE were surprising reversals of form, particularly in the case of Minnesota and Iowa. The former team did not lose many of last year's men, but for some reason did not come up to their 1900 form. Minnesota's general style of play was a modification of the guards-back formation, which failed against Wisconsin, but against all the other teams was successful.

IOWA lost by graduation most of the men of its splendid eleven of last year, and its green material consequently lacked team play and experience. However, as most of the 1901 men are to be back next year it is only reasonable to suppose that Iowa will again equal the high position it has attained in the past two years.

THE greatest advance made by any western team this year, outside of Michigan, has been that of Illinois. Barring one bad case of over-confidence when they lost to Northwestern, they played a very high grade of football, and in general style similar to that of Wisconsin, using to good advantage the line men running with the ball.

NORTHWESTERN has throughout the year played rather an indifferent game. They defeated Illinois and Chicago, losing to Minnesota and Michigan, but depended largely upon a tandem formation which was very slow and quite unsuccessful in advancing the ball; their defense was far better than the offense, and their scoring largely due to the individual efforts of Johnson, who is an exceptionally good man in a broken field.

CHICAGO, owing largely to injuries received in early games and to lack of material, failed to develop a team that in any way approached the standard of previous elevens. At times it played good football, but the back field was not in harmony, and the majority of the line lacked experience. At times the team showed strong defensive power, but their mode of advancing the ball failed in every game. The loss through injury of Sheldon, the captain, may have been largely responsible for the poor showing.

PURDUE, Beloit and Indiana have all played better football than in the past few years, but owing to the lack of available men are not as yet in a class with the larger universities.

NEBRASKA has made rapid strides, and although defeated by Wisconsin and Minnesota, had a team that would rank favorably with any of the others, barring Michigan.

The quality of football played this last season was superior to anything in the past, and best of all the ethical conditions have been greatly improved.

Scores of the most important games.

Michigan	22; Chicago	0	Wisconsin	18; Nebraska	0
Michigan	89; Beloit	0	Wisconsin	18; Min'sota	0
Michigan	50; Iowa	0	Wisconsin	35; Chicago	0
Minnesota	16; Northw'n	0	Northw'n	6; Chicago	5
Minnesota	16; Illinois	0	Northw'n	17; Illinois	1
Illinois	24; Chicago	0	Missouri	18; Kansas	12
Purdue	5; Northw'n	12.			

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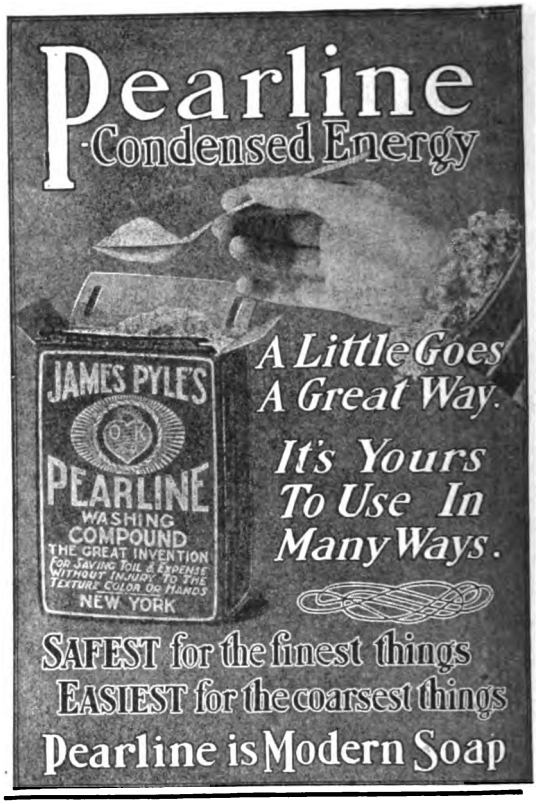

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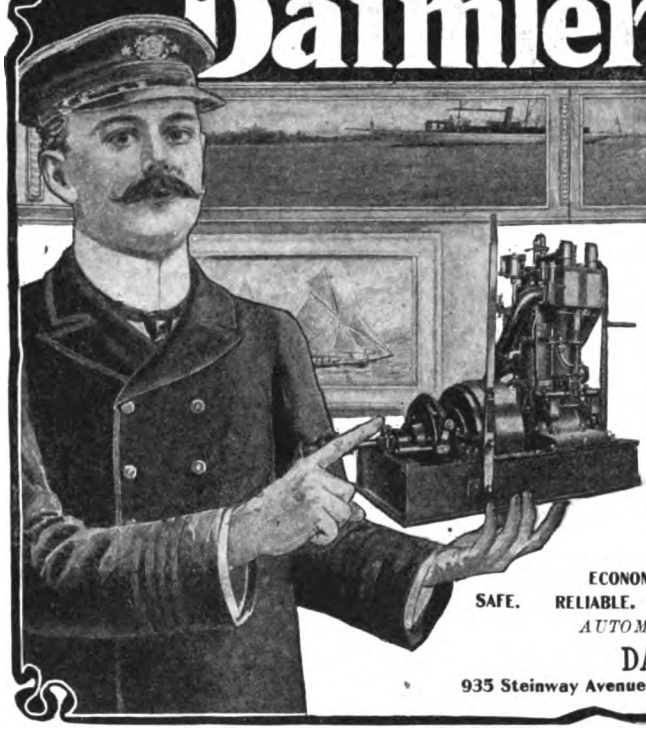

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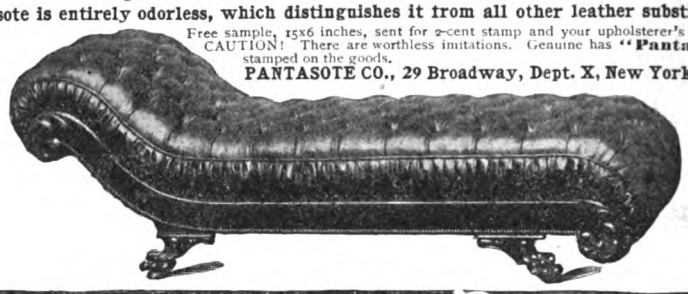

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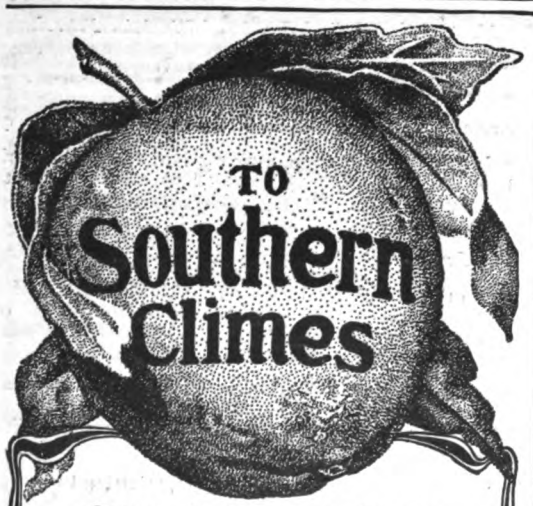

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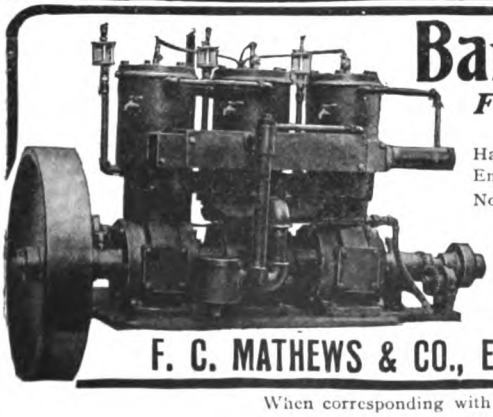

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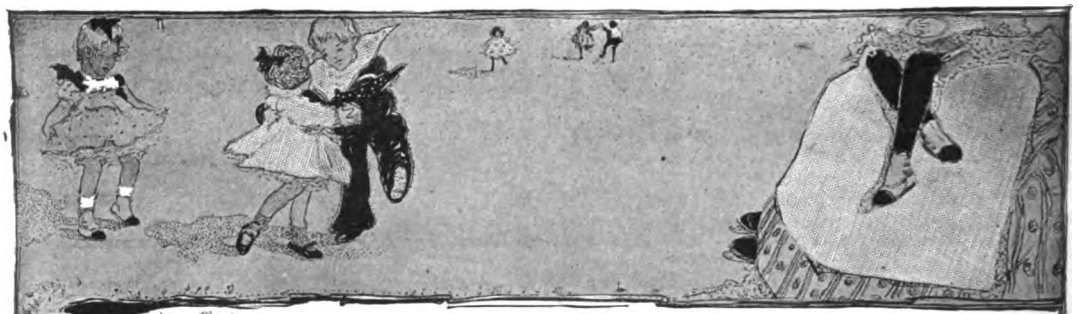

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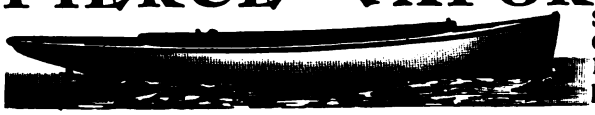

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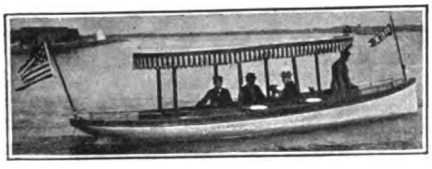

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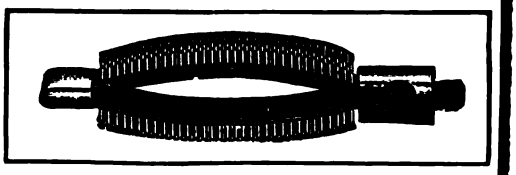

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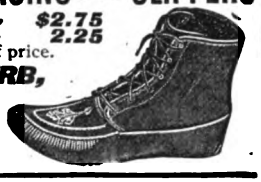

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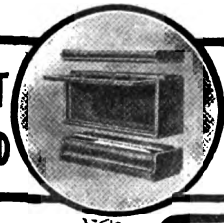

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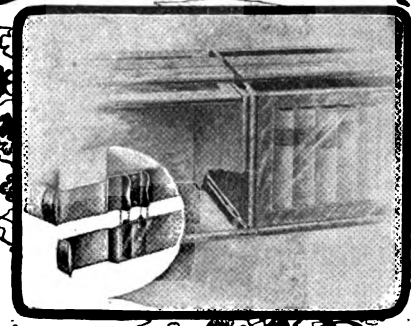

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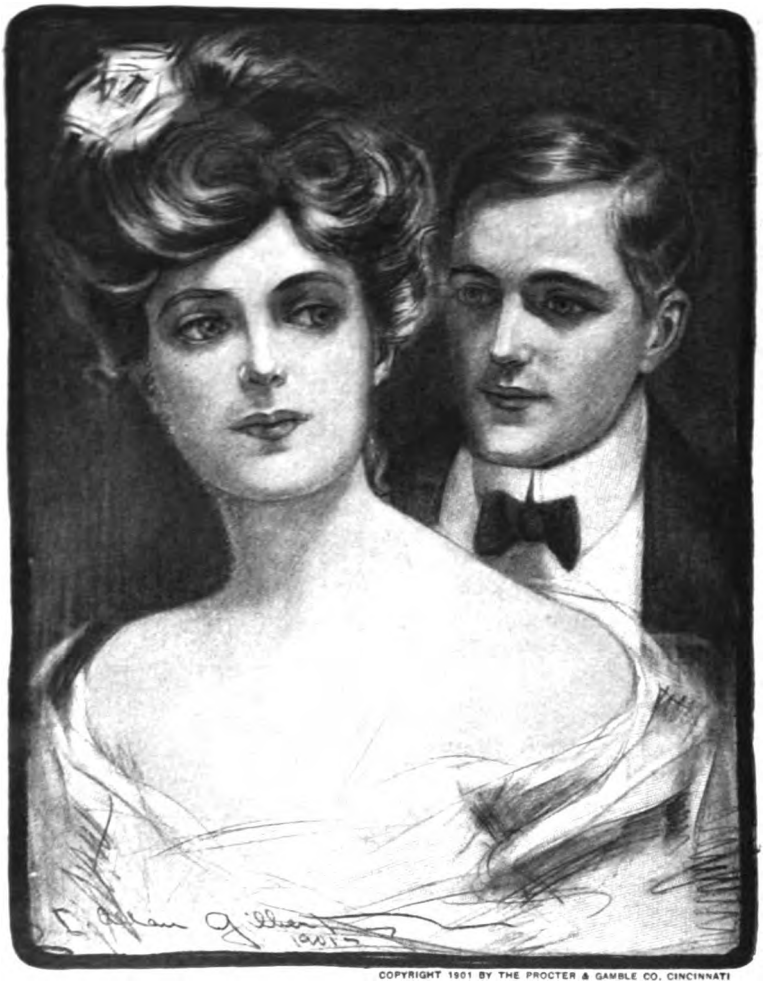

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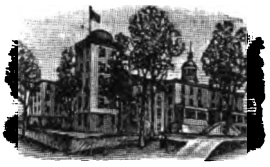

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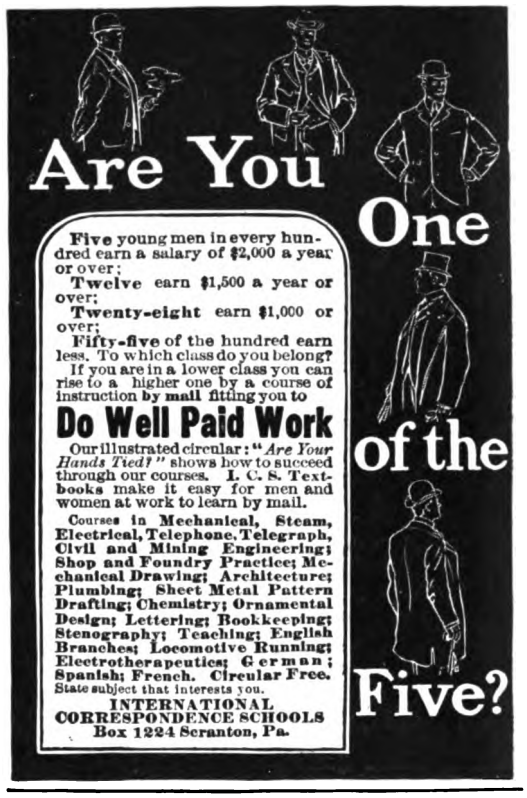

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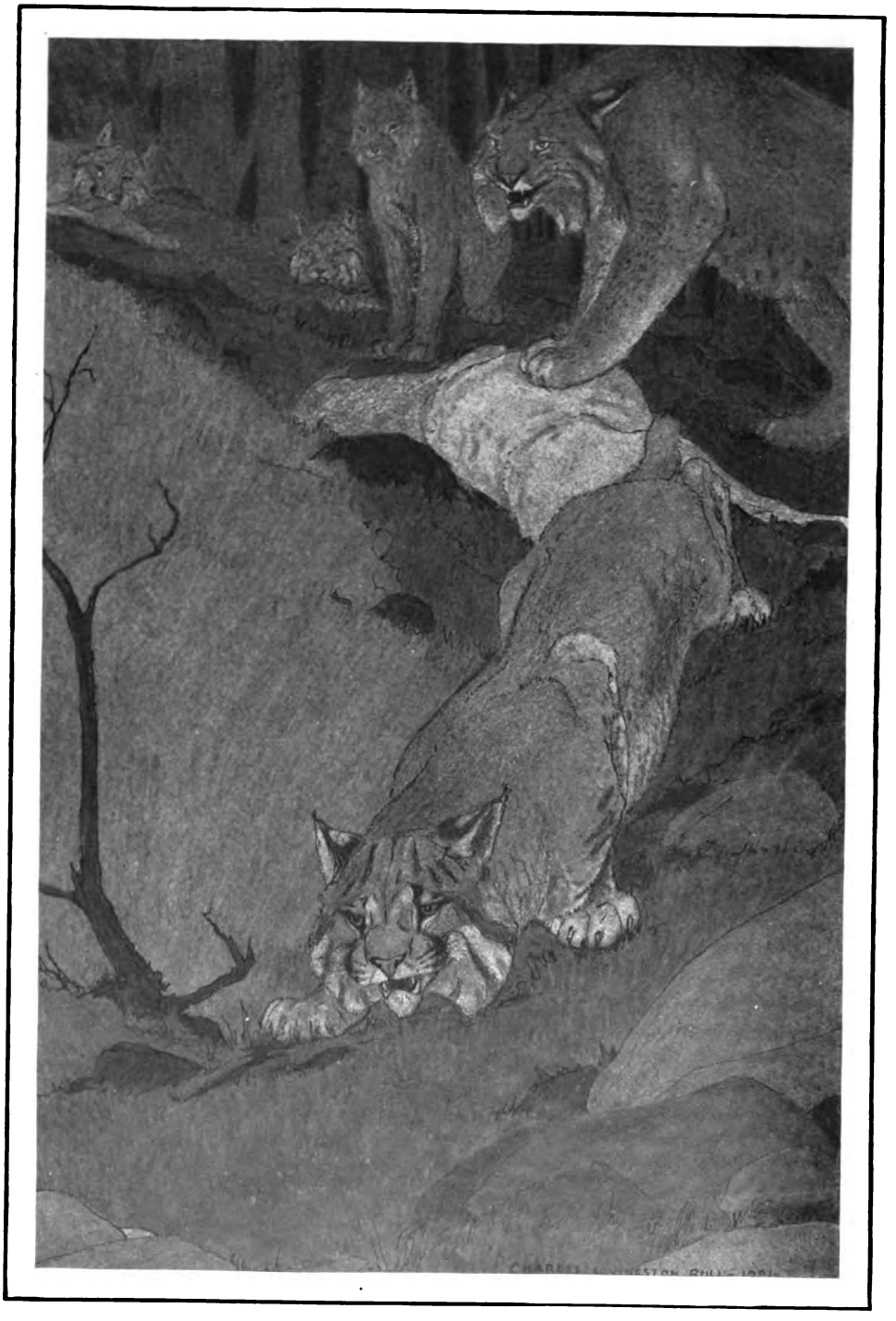

"AS A CAT CREEPS UPON AN UNSUSPECTING BIRD."

(See "The Haunter of the Pine Gloom," page 542.)

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OUTING

VOL. XXXIX. FEBRUARY, 1902. No. 5

HUNTING SHEEP AND ANTELOPE IN LOWER CALIFORNIA

By Charles B. Slade

THE sparsely settled wilderness comprising the peninsula of Lower California extends short of a thousand miles between the Gulf of California and the Pacific, with an average width of over one hundred miles. Scattered here and there at isolated points gold and onyx mines are being worked, and a few small cattle ranches are hidden in the interior. The necessity of having a permanent point of ingress and egress for supplies, materials, etc., to and from the mines and ranches, accounts for the presence of San Quintin, the little lost settlement by the sea.

Picture to yourself a clustered dozen of small frame houses, sheltering a population of not more than twenty-five, one hundred miles from any other civilized community; with the vast ocean before and an all but impenetrable desert-land behind—and you see San Quintin. Here we arrived after a five days' sail from Ensenada, just over the border line between Lower California and the United States.

The next day, Duarte, followed by a fat mongrel cur called Fino, appeared with the mules. He brought with him his son Marguerito and a swart Mexican from Guadalajara, called Ignatio O'Rosco whose deftness in the culinary art was demonstrated later to our entire satisfaction.

The morning passed in packing the train. There were eighteen animals in all, nine pack mules, seven saddle animals, the bell mare, and one spare mule. Flour, rice, bacon, coffee, sugar and other provisions of all sorts, which we had brought with us, were soon stowed away. In all, nearly half a ton of supplies were distributed; an average load weighing two hundred pounds. Owing to previous experience, and with a keen, not to say pointed, recollection of sleepless nights passed on jagged rocks and amid spiny cactus beds, we came provided with two folding cots, together with four stout but light mattresses and eight heavy blankets. These awkward impedimenta tried the very soul of Duarte and tested to the utmost his skill as a packer. One mule was selected to carry these and other odds and ends which were difficult to pack, and when the bedding, kitchen utensils, etc., had been loaded upon it the beast presented an absurd appearance. The principal thing in view was a pair of wing-like ears, to which was attached a confused, misshapen mass about as wide as long, from the general appearance of which there seemed to be no particular reason why it should progress in any one direction more than another. However, a closer inspection discovered four legs and a head protruding, and a wisp of a tail, hanging from the after section of the pile like the frayed end of a rope.

And thus we set out.

The spectacle of a pack-train in action is interesting if amusing. In the lead the old bell-mare stalked along to the jangling accompaniment of a rusty cow-bell hanging

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from her scrawny neck. Next in line came the ludicrous odds and ends mule. Other hump-backed, wing-eared animals followed in close order, and from a distance one might be pardoned for mistaking the train for a caravan of camels.

We laid a trail parallel to the coast for a couple of miles, then turned almost due east and rode for five miles over the level plain leading to the mountains. An hour before sundown we reached Santa Maria, where our first camp was made. The next day we pushed on to Cypress, twenty-four miles away. Our journey was mainly up hill now, and the country became wild and rugged, a succession of terraces or mesas leading to the higher ground like a rough, giant stairway. The table-like mesas are cut and slashed by deep cañons, radiating in every direction, some of the great gorges being over a thousand feet deep. The more shallow cañons, with rather sloping sides, are called arroyas, and at the bottom of one of these Camp Cypress was made.

While Duarte and his men unpacked the animals, we—F. L. Lowndes, R. Crewe-Reid, G. S. Hamilton and I, who constituted our party—climbed out of the arroya upon the mesa. The big tableland, eighteen hundred feet above tide-water, afforded a grand view of the massive stairway by which we had come. Step by step the uneven ridges sank lower and lower for thirty miles, until at last the final step was lost beneath the placid waters of the mighty ocean. Looking eastward we saw an apparently impenetrable barrier or rather an interminable succession of barricades and obstructions which seemed to forbid our farther progress. Huge hills rose on every hand. Here a high ridge, there a jagged peak, lapping and overlapping, banked one upon another, until mountains and clouds commingled in an indistinct, irregular outline upon the horizon, many miles away.

The third day we pushed on to El Alamo, about thirteen miles away, and camped in the bend of a cañon on a sand drift beside a stream of water. This, by the way, was the only running water we discovered during the trip. Our future water supply was wholly dependent upon pools and natural basins which collected the rain in the cañon beds. The little stream followed the course of the cañon floor until three miles below our camp, where it disappeared into the ground. After traversing a subterranean passage for twenty miles, we were told that it reappeared in the bed of the same gorge and followed it to the sea. That night we were lulled to sleep by the musical discord of a thousand frogs. Save for this choir, led by the melancholy hooting of an owl and a whippoorwill's plaintive call, there was naught to disturb the immense silence of the wilderness. At daybreak I was awakened by songs of many birds. The earliest risers seemed to be the little warblers of a rich, golden yellow hue, which flitted in and out among the foliage of the alamo trees. From my couch I could see a handsome oriole with its gorgeous arrangement of rich yellow and black, making it conspicuous whenever present. Many varieties of dainty fly-catchers darted to and fro in the thick foliage. A quail was heard whistling in the distance. Overhead a dove flew noiselessly in and alighted upon a dead limb. The bright sunshine percolated through the trees, throwing latticed shadows upon the ground and the entire scene had a charm irresistible. My reverie was ended abruptly by a call from Rosco who had prepared breakfast. After the meal we broke camp.

It was a source of never-ending interest to watch the process of getting the pack-train under way. At night in making camp the packs were removed one by one and placed in a semi-circle upon the ground. The mules were then hobbled and left to forage for themselves. In the morning, the first effort was to catch the old bell-mare, and this feat apparently required the assistance of many vivid Spanish oaths. With the bell-mare tied to a nearby tree it was no difficult task to gather in the other animals. The subsequent behavior of the mules was uncertain. Sometimes they would stand like dusty brown statues, while the packs were being securely strapped to their backs. Again, they acted like a lot of small boys afflicted with the collywobbles after a raid in an apple orchard, pacing off a few yards and deliberately lying down for a period to grunt and groan in a way that would arouse sympathy in the hearts of one unfamiliar with their tricks, but which Duarte treated with a liberal application of small stones plied vigorously against their ribs.

The train moved at a gait of perhaps three miles an hour, now laboriously climbing a steep and rugged hillside, to follow along the crest of an uneven ledge jutting out

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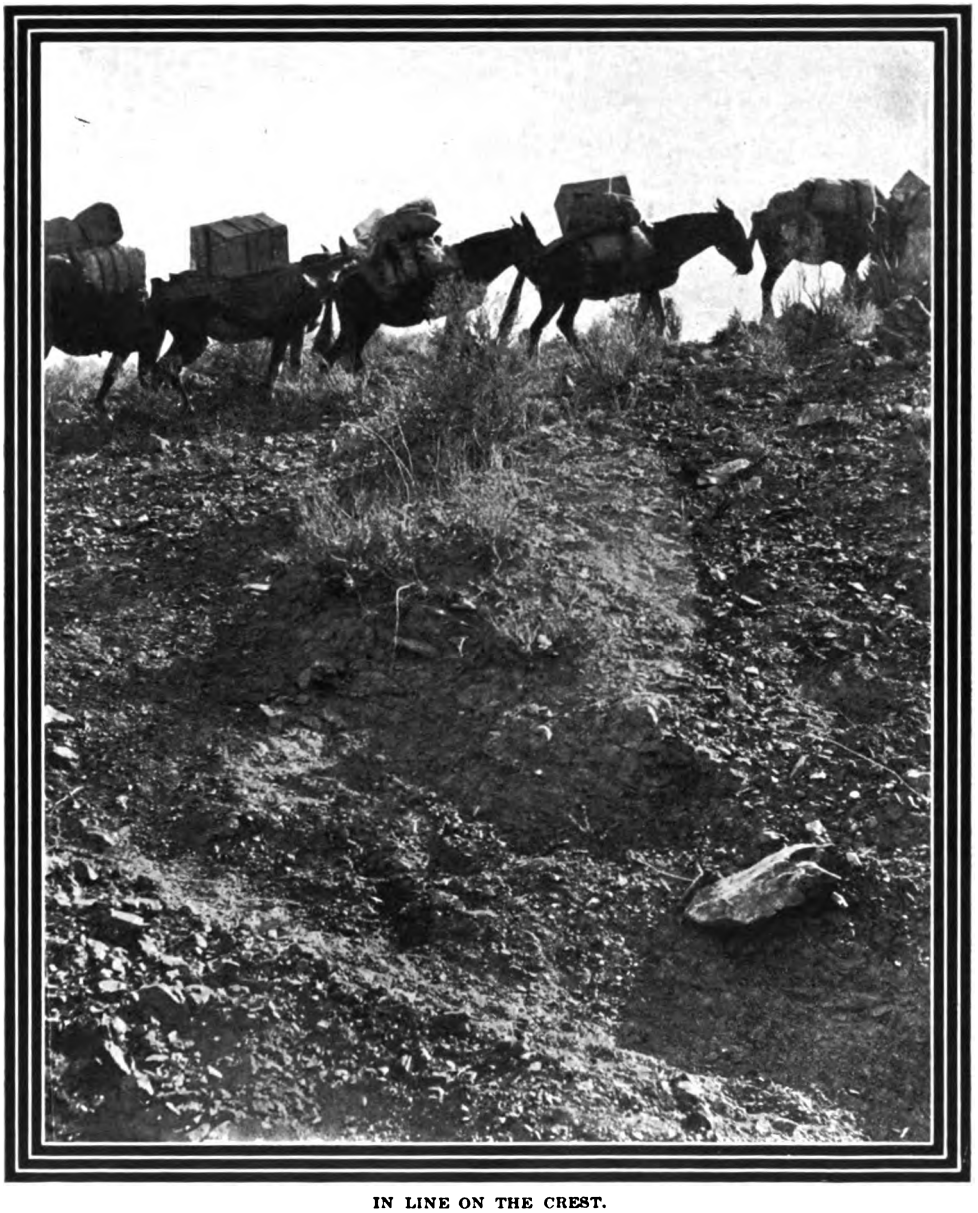

IN LINE ON THE CREST.

from some cañon side, again plunging abruptly down a seemingly vertical wall in an altogether alarming manner. The sagacity of the bell-mare was astonishing. Often only the faintest ghost of a trail was visible, yet she picked the way with marvelous accuracy. A well-bred hound could not have followed the trail of a fox with greater certainty. Leaving the crest of a ridge we were confronted with an almost vertical descent along the wall of a deep cañon. Without a pause the train plunged downward. On the brink we hesitated. I glanced at Crewe-Reid questioningly. He nodded with an assumed lightheartedness, and shouted "Come on!"

"Mules are sure-footed. Nice, sure-footed mules. Sure-footed mules never slip;" I repeated mentally, and followed by Hamilton, went after Crewe-Reid. Lowndes,

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A FAMILY CHAPEL.

who was always kind-hearted, especially to dumb beasts, slipped out of the saddle and employed his legs and arms in the descent, "to save the mule's back!" he explained when we reached the bottom. Half way down the declivity, the trail abruptly fell three feet in a sort of terrace. In a moment my mount had made the step, but with its fore legs only. The rear legs were still on the elevation and the beast was apparently going to rest standing on its head. Meanwhile I lay back, stretched along the creature's spine, parallel with its body, my feet in the stirrups sticking up besides its ears. It was a trying moment. A slip meant a fall of perhaps five hundred feet; "Sure-footed. They never slip!" I murmured prayer-like to myself, and the next instant my faith was justified by a cautious movement beneath me, and the mule had passed the terrace and was picking its way safely along the trail.

Some ten miles had been covered when we entered a forest of cactus trees. What the conifer is to northern latitudes the cactus is to Mexico. Here we saw the biggest specimens of the one hundred varieties of the prickly vegetation. The huge pulpy trunk and limbs, covered with sharp spines, grew in many instances to the height of fifty and sixty feet. Others were round masses of prickly, pale green vegetation lying on the ground like a porcupine rolled into a ball. The spines of some were three and four inches in length and hard and sharp as needles. The fantastic appearance of a cactus forest is difficult to express. The general impression was that of a submarine scene. Many of the trees looked like huge coral growths. Others extended tentacle-like arms in all directions. The porcupine balls resembled sea urchins resting on the ocean bed, and are found in abundance throughout the mountain country. They constitute food for the sheep, that use their big horns to knock off the outer rind with its spines, thus exposing the soft, pulpy heart which is eaten with avidity.

We covered twenty miles that day, and were glad to rest when Duarte led us to a sandy bar on the floor of an arroya amid a clump of palm trees, near which a number of alamo trees growing beside a pool of water served to name the camp, Los Alamos. We were now close to the big game country and rivalry keen among us to achieve the honor of first sighting sheep.

Early one morning, we entered the Puerta Suela (single gate) cañon, which, as its name implies, is the only gap leading into

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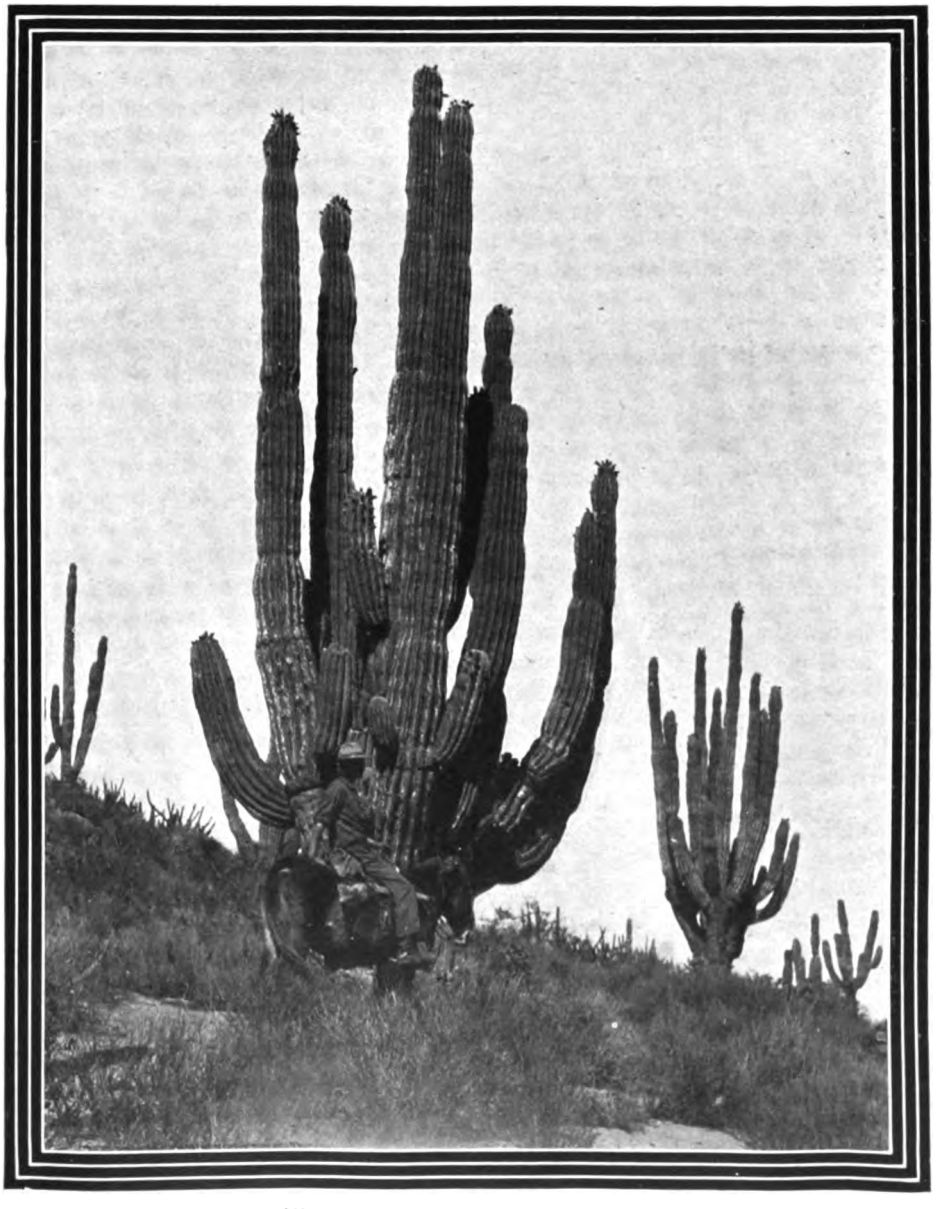
the heart of the high hills. Traversing this gap, we headed toward Matami, the loftiest peak in the range, and the very center of the big game region, and camped at La Huerte in a clump of palms beside a spring of clear, cold water—a most unusual find on the peninsula.

At dawn next day Duarte and I left camp to hunt the hills and bottoms for sheep. We found it extremely rough going for the first two miles and though there were many tracks of sheep, none was fresh, so we kept on up and down and around the precipitous shelves projecting from the mountain sides. Four hours later, during which time we had traveled about ten to twelve miles without sighting game, a warning from Duarte brought me to a sudden halt.

"*Dos blancos, boregas,*" said he, looking steadily toward a shelf three quarters of a mile away.

Following the direction of his gaze, I saw



ONE OF THE GIANT CACTUS WE SAW.

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two sheep feeding lazily up the steep rocky sides of a ragged hill. After picking our way cautiously through a cañon bed with much difficulty for a quarter of a mile, around a promontory we saw three of the wary animals. They were feeding gracefully and unconscious of our presence, yet while we watched, they suddenly disappeared over the crest and gained a mesa beyond. We were now obliged to make a detour of a mile and a half to the leeward side of the mesa, where, from between two big boulders, I espied three fine rams not one hundred yards away. Out of breath and still shaking from the exertion, I raised my rifle. It was too good a chance to lose. A moment I hesitated, to steady my aim.

"Quick!" urged Duarte. At the sound of his voice, the ram I had covered, turned and looked straight into my eyes. Now was the time. I fired. The report echoed and re-echoed through the surrounding valleys and among the high peaks. At the same instant the three sheep bounded swiftly away over the sloping mesa. After running a hundred yards the foremost ram stumbled to its shoulders and rolled over dead. My bullet had penetrated the heart. I hurried after the others, pausing at intervals to shoot. A final dash of two hundred yards brought me to the last margin of the mesa. A wounded ram was ascending the opposite hill. A quick shot ended its life. The last one of the trio disappeared among the hills.

One of the sheep was three and the other five years old, and they were beautiful specimens, with creamy white coats instead of the dingy gray which they carry later in the season. We covered the carcasses with large flat stones to protect them from buzzards and coyotes, and returned to camp well satisfied. In the morning Marguerito and I started on mule back to bring in my kill, and on approaching the caché we discovered several old rams on the very ground where the day before we had sighted the others. They evidently saw us and were moving about uneasily. One big fellow, the leader, faced us for a moment. Immediately dismounting and uncasing my rifle, I fired at him, and in less time than it takes to write it, the entire band was lost to view among the boulders, although they soon reappeared near the top of the hill, with the same big ram in the lead. On the summit he stood with proud dignity holding aloft the mighty horns. It was an inspiring picture and sharply outlined against the sky he made a fine target. In another moment I levelled my rifle and fired. Then followed a scene to send the warm blood to the heart of any sportsman. There, on the crest, two hundred and twenty yards above me, the old monarch faltered, swayed from side to side, limbered and fell, striking another member of the band, and the others quickly stepping aside, the dead ram rolled helplessly down among the rocks for forty yards. The other sheep were missed by a volley of shots and disappeared.

The dead ram was a king of his kind, about twelve years old. My first bullet had traversed the abdomen, without apparently inconveniencing him, the second entered the back of his neck lodging at the base of the skull, causing almost instant death. We rolled the heavy carcass to the foot of the hill and loaded it, together with two other sheep, upon the mules, which made a heavy load to carry back to camp.

Meanwhile Lowndes and Crewe-Reid had been out into the hills to the southward. Toward dark they came in with one ram and a deer, so that we now had plenty of meat in the larder. At first the flesh of the big-horns was rather tough, but after hanging a few days it became a tender morsel indeed, having a delicate flavor somewhat resembling that of young beef, and with no suggestion of domestic mutton.

We enjoyed the sport at this location for ten days, and then pushed southward to San Juan de Dios, where, at Espanosa's ranch, we left the heads and hides of our game to be picked up on our return, and then went on to an abandoned habitation known as the Stone Corral. We were now approaching the antelope country, and it was a parched and desolate region indeed. Our guides said no rain had fallen in ten years in nearby sections of the country, which we could readily believe as we had been out nearly a month and it had rained only once. Our water supply at the Corral was abominable. It was obtained from a half dried pool found in a dark cave in a cañon wall; the cave was the haunt of numerous bats, and the water in the basin was alive with myriads of insect life. But boiling made the water harmless if not palatable.

After a day of enforced inactivity, because of a strong wind which forbade venturing among the crags, I went out one morn-

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OUR PACK TRAIN IN ACTION.

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ing looking for antelope, and determined to bring in a pair of horns or resign all pretensions as a hunter. Following a cañon bed some three hundred yards, I ascended to a mesa five hundred feet above. From this view point the outlook was a picture of desolation. On all sides were ever-extending mesas, bare and lifeless. The horizon to the north and west was serrated by the irregular outline of the mountains in the distance. The mesas averaged about one mile in width and were of unequal height, separated by irregular, ragged, cliff-walled gorges. It was on these tablelands I hoped to find the object of my search. Toward noon I came to a small pool of water, a mere puddle standing in the bottom of a tinaja, as the water catch-basins are called by the Mexicans. Stooping over to drink I heard the thunder of galloping hoofs along the ground. Near at hand, under a dead juniper tree, with tracks leading from the pool, I found a yet warm bed. The click of my rifle butt against the rocks had evidently frightened the animal. Following the tracks, I suddenly caught sight of three buck antelope. They saw me at the same moment and were trotting away one hundred and twenty yards in front. I halted at once, and they did likewise. One of the three stepped aside, apparently to get a better view of me, and presented a broadside target of which I took quick advantage. At the report the antelope fell in his tracks while the others bounded away, their black horns glistening in the sunshine and their manes floating lightly in the wind.

From the Corral we moved onward ten miles to La Tinaja, so-called because of the presence of a natural cistern of stagnant water, where we enjoyed the opportunity to use soap and towels. Thence we trailed due south twenty-five miles to the plains of St. Augustine within twenty miles of the coast and completed thirty-one days of travel and an estimated two hundred and eight miles since leaving San Quintin.

"THE DEAD RAM WAS A KING OF HIS KIND."

The return journey was begun by striking west as the crow flies to San Fernando, twenty-two miles, then northwest twenty-one miles to San Juan de Dios, thus making an irregular parallelogram. From thence, we retraced our outward bound trail, reaching San Quintin on the forty-first day of the trip, having covered two hundred and ninety-seven miles in all.

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SOUTHERN WOMEN WHO RIDE TO HUNT

By Margaret Nelson Barry and Mary Randolph Hicks

IN the catalogue of ephemeral amusements hunting has no place. It is an instinct in the savage, an inherent passion with the civilized man. He has been hunting in one form or another since the earliest dawn of the race, and the difficulties to be overcome but add zest to the chase. So hunting is a natural sport, and cannot be relegated to the past any more than the love of conquest. Once arrived, it has come to stay.

In the early days of American history fox hunting was confined almost entirely to the South, and even in Virginia until recently there were no organized clubs for this sport. The hunting was done with private packs, and those who followed were few in number, while a woman in the field was unusual.

But American woman has discovered the exhilaration of a gallop, and is becoming keen on the sport, and what she undertakes she usually does well; for skill, judgment and cool nerve many of the women who hunt to-day are not surpassed by the best men to hounds.

In all matters pertaining to the horse Virginia has been the pioneer. The first thoroughbreds brought to America were imported to the Mother State, and from early colonial days the horse has there been carefully bred and treated with intelligent consideration by the farmer.

In the natural sequence of events, racing, too, was a popular amusement in Virginia and Maryland long before it became so in the North, or before the first Jockey Club was formed in 1735, and a track laid at Charleston Neck. The famous midwinter St. Cecelia Ball of Charleston is a commemoration of her ancient racing days, when in February of each year, the young planters and noted beauties of South Carolina assembled in that quaint town of lordly homesteads to enjoy the races and the great ball of the season.

MISS ISABEL LEMMON—PIEDMONT CLUB.

There are two other dances differing in no whit from the one before mentioned, but it is to this second St. Cecelia that each maiden wears her finest frock and for which she will sacrifice any other pleasure. Charleston is conservative, and because, more than a hundred years ago, this was the custom, she still clings to her ancient way, though

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MRS. ALLAN POTTS—DEEP RUN HUNT CLUB—ON "BACHELOR."

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grass covers the old track and race meetings have long since ceased to be held.

It was Virginia that laid the corner stone of the horse show associations which now form so prominent a feature in society's programme. Years before New York's millionaires witnessed, from their boxes, the performances of noted horses, the youth and beauty of "the Old Dominion" gathered annually at Upperville, a quaint little village in the blue grass region of northern Virginia, to criticise and enjoy the performances of splendid specimens of the equine race.

Although that was in the early fifties, a few courteous gentlemen of the old school still tell of the sweet women and gallant men who then assembled beneath the same oaks that cast their cool shadows on the pleasure-loving generation of to-day.

Nowhere else in this land of the dollar, of strenuous work and mighty invention, is to be found the same inherent love of sport for

MISS DAISY LEITER.

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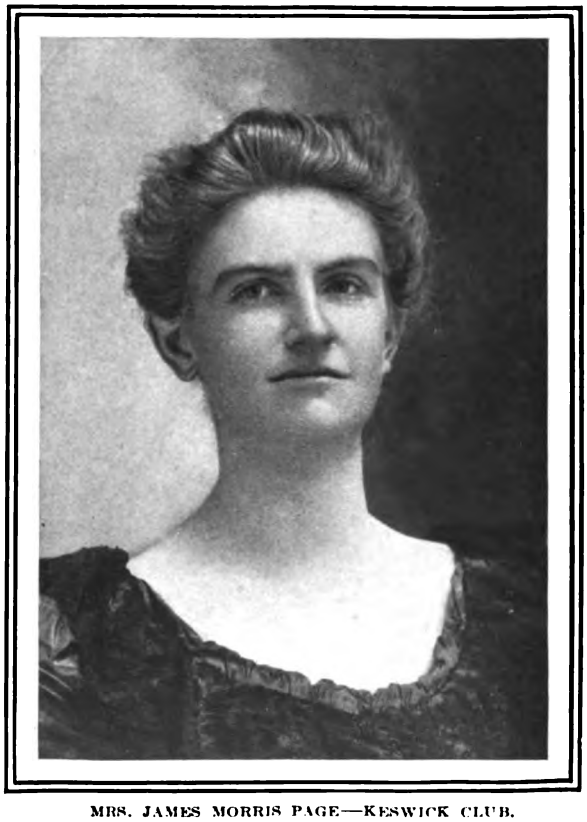
sport's sake as among the easy-going people of Virginia.

In them the love of the horse is as deep-rooted as in the Arab, and the poorest farmer keeps his hunter, on which he spends at least one day in the week, during the season, wandering from dawn to dusk over hill and dale in pursuit of the wily fox. His horse's performances are a pleasure to him; his hounds', a delight, and he watches with the keen appreciation of a *connoisseur* their skilful work in picking out a trail so cold that it would be undistinguishable to the English-bred hound accustomed to the moist climate of his native island that makes scent what is called in sporting vernacular "blazing."

In the days when Mount Vernon was at its prime, and the great Washington entertained in lordly style, no form of amusement was more popular than fox hunting. The Father of His Country was a proverbially "good 'un to follow," and even little Nellie Custis was at home on horseback. But the side saddles of those days made it well-nigh impossible for the fair sex to take part in the chase, while the long skirts rendered even road riding dangerous. The high pommels, the ill-balanced tree, the small stirrups of those days, now seem contrivances the most crude.

A woman then went forth to hunt with a long, full skirt which almost swept the ground, a short jacket buttoned to the throat, and a hat that would suggest Queen Guinevere as she rode with Lancelot in the youth of the year. A waving plume and gauze veil floating behind completed a costume most charming, but utterly unsuited to the purpose for which it was designed. Her "escort" in knee breeches and cocked hat rode on her left, in order to have his right arm ready to assist in case of the probable turning of her saddle.

Even in rural districts of the South the old saddle, the full skirt and the timid rider are becoming obsolete, and, in general, the horsewomen of Virginia, are as up-to-date and smart as those who follow the Meadowbrook or Myopia packs.



MRS. JAMES MORRIS PAGE—KESWICK CLUB.

Until barbwire made its appearance there was no such thing as a drag, and fox chases had been in vogue in Virginia for about two centuries before a club was formed for this sort of hunting. The oldest and most widely known of modern hunt clubs in the South is that at Warrenton, Virginia, to which a charter was granted in 1889. During the thirteen years of its existence, drag hounds have been hunted regularly, with a few weeks' interruption on account of frost, from October to April, when the season ends with a point to point steeplechase, open only to members of the club.

The country about Warrenton is rolling, the fences generally high and stiff, while the frequent trappy places encountered render cool judgment and good nerve most essential. The Master, Mr. F. A. B. Portman, is a keen sportsman, but not more enthusiastic than his wife, who, since she

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was a little girl, has been at home in the saddle, and probably no woman in America to-day will outrank Mrs. Portman for firm seat, light hands and grace in the hunting field. There are many women who appear at the meets with more or less regularity, and among those usually seen in the first flight may be mentioned Mrs. J. K. Maddux, who has recently been added to the list of enthusiastic sportswomen that follow these hounds. She was Miss May Müurling of New York, and a well-known and popular figure in the show ring. Her Virginia-bred hunter, Searchlight, and her Canadian mare, Morea, have carried off many coveted prizes.

Possibly owing to its proximity to Washington, or on account of the fame of the good sport to be had with these hounds, many strangers and members of other clubs are attracted to Warrenton during the season. Among these are Miss Daisy Leiter, of Washington, a sister of Lady Curzon, wife of the Viceroy of India. Miss Leiter is a beautiful woman of the brunette type, and a stunning figure on horseback. She went to Virginia last season to prepare herself for the coming season with the Quorn in England, and became distinguished for her splendid nerve in the field.

The Deep Run Club of Richmond, which keeps both drag and fox hounds, also furnishes interesting sport. And, though the drags are not laid over as big a country as around Warrenton, they cover more miles. Five o'clock tea at their club house is a charming event after a drag. The drive out from the town is through historic country over a fine road. Richmond has always been famous for the beauty of its women, among whom there are many skilful riders. Mrs. Allan Potts, Mrs. Christian, Mrs. Hugh Taylor and Miss Skelton are of the hard-riding contingent who go out whenever the hounds go. Mrs. Potts was Miss Gertrude Rives, a sister of the novelist, Amelie Rives. She, like her sister, is very beautiful, and probably no woman in the South is more at home in the saddle. She has bred and schooled her own horses at Castle Hill, in Albemarle County, where her stables are worth seeing. Her brown hunter, Bachelor, is as gentle as a dog, but in the field will have no other place than in the first flight.

MRS. JAMES K. MADDUX—WARRENTON HUNT CLUB.

In the Piedmont Club only the wild fox is hunted, and the country in this locality is beautifully rolling, with large fields of firm turf, but the fences are very high and stiff, so that only one with a nerve of steel can live with hounds. Very few women here follow, but Miss Isabel Lemmon, one of Baltimore's most beautiful women and a granddaughter of Colonel Dulany, may often, during visits to her grandfather's historic homestead, be seen in the field.

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MISS NORA HERBERT.

She is as graceful on horseback as in a ballroom, and owns several ribbon-winning hunters.

The Keswick Club can boast of the riding of Mrs. James Morris Page. She is Irish by birth, and has probably inherited much of the pluck for which the Emerald Isle is noted.

There are, besides those already mentioned, several other smaller clubs, and many private packs, of which the best known is probably Mr. Cortland Smith's, near Alexandria.

In the last few years women have been riding in the show ring in Virginia, though they were rather slow in taking this up. Mrs. Frank Barker, however, took the lead, and many have followed. She is an English woman of splendid nerve, and excels in the training of raw and intractable colts. She has ridden in several of the Baltimore shows with marked success. Mrs. Blair Johnson, of Warrenton, is also a well-known figure in the field and show ring.

Riding is considered a necessary accomplishment for a gentleman of the Old Dominion, and it is becoming more and more a part of a woman's education; many who for various reasons do not ride to hounds may be seen in well-fitting habits taking a canter through country lanes.

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COASTING ALONG LABRADOR

By Henry Webster Palmer

ONE of the fellows had been in Labrador the summer before to get Eskimos for the Paris Exposition. He wanted to go again, and I wanted to go with him. Consequently we enlisted four college mates and a dog, and made our plans. Frank was to be geologist, Hunt and Mac mineralogists, Henry ornithologist, Del psychologist, the dog and I pleasureologists. We chartered the *Brave*, a forty-ton schooner, in Newfoundland, fixed her over to suit ourselves, booked four sturdy sailors, none of whom could swim, and started out. As we sailed from St. John's harbor, we barely escaped intimate acquaintance with the harbor rock. We slipped gracefully by, however, and were off for the North. After a week's sailing we encountered the spring ice-floe. It headed us off as we were about to cross the Straits of Belle Isle, and we unwillingly put back to Newfoundland. At Kirpon harbor, where fifty other schooners had been held up for a week by the ice, we anchored on the eve of the Fourth of July. The next morning our harbor was jammed full, great masses crushing against the sides of the vessel. During the night the floe had moved in; but it had moved in so quietly that not one of us was disturbed. It was a magnificent sight, this tremendous ice jam. Great, flat

Photographs by Dr. Daly of Harvard and Professor Delebarre of Brown.

SETTING OUT FOR OUR ONE HUNDRED MILE WALK.

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pans, separated now and again by huge bergs, crowded against each other. Here and there massive toadstools towered above the floating cakes. The white field was tinged with faint shades of color. Light and dark blue, green and purple, mixed in delicate hues, as the shadows dictated. The first desire was to get over board and walk on the ice. Henry and Mac jumped out, navigating around the ship, and the rest followed. Mac was the bravest, until he had taken a running jump from a flat pan to the slippery side of a berg, ending with a splash in the intervening sheet of water; then his ardor cooled. In the afternoon we went ashore, now running, now jumping, now sliding on the ice. From the northern bank we gazed across the Straits that separated us from our longed-for Labrador. As far as we could see there was nothing but ice, some flat and smooth, some rugged and mountainous. For ten days we were imprisoned in this harbor. Toward the last, when the ice began to move on, walking ashore became very exciting. The alleyways of open water grew wider, the jumps grew longer, and each step was more uncertain. Many a hasty venture was made on rotten ice, and many a cold bath was the penalty.

The trout fishing at Kirpon, however, was good. A remarkable collection of ponds, placed in a fearfully boggy country, was the fishing ground. One day, from a small hill, I counted eighteen ponds in the immediate neighborhood. All seemed exactly alike, and as no trees grew in that region, when I came fishing there a few days later without my compass, and a heavy fog set in, I was easily lost. The fog was so thick I could not see twenty yards ahead. I knew not which was south nor which was north, and for hours I wandered up and down. Visions of starving and freezing passed through my brain. Every trail I followed led to nowhere—died out in the spongy bog. Finally I struck what seemed to be a good trail. Although I felt sure it did not lead to Kirpon, I determined to follow it. Many weary miles through knee-deep bogs, and along the rocky coast, brought me to Fortune Bay, where I found a warm cup of tea and a guide. I got back to our ship, just in time to keep the captain from setting out on a second relief expedition. The next day I found that if I had followed the same trail in the opposite direction, I might never have returned alive.

During the next few weeks we discovered our crew to be a most remarkable set of men. Contrary to our expectations, not one of them ever swore, and they never asked for more than their weekly allowance of two fingers of rum. But it was their religious devotion that astonished us most. We found one Sunday that, by taking on a supply of wood that day, we could save much time. The crew, however, refused to assist. To get wood, or to do any form of work however important, on Sunday, was, in their opinion, to perjure one's soul. We got the wood ourselves, and not a man in the crew spoke to us for a whole day. Had ordinary fishermen taken on a load of wood on Sunday, all the other fishermen in the harbor would have visited the boat that night and thrown it overboard. One Sunday, on our return trip, a school of herring came into the harbor. They were so thick that we could almost scoop them out with our hands. Many of the fishermen were returning with empty vessels, yet not one would set his net for these herring, because the day was Sunday. The next morning the herring were gone. I heard a story of an abnormally religious old trapper in northern Labrador, who for years had been nearly starving to death. One day he caught a silver fox in his trap. Now a silver fox is worth hundreds of dollars; one sold in London not long ago for 580 pounds sterling, and the old trapper ought to have been happy; but he wasn't. It was Sunday, and he was too religious to take it out of the trap. During the day Mr. Fox, who did not object to working on Sunday, gnawed off his own foot. Monday morning the trap was empty.

Nevertheless we paid dearly for the wood we gathered that Sunday. The mosquitoes voraciously welcomed our arrival on shore. Great clouds of them surrounded us. We even breathed mosquitoes. The "dope," warranted to keep off insects on our hands and faces, seemed to be their favorite relish. They were so thick that when I allowed them to settle on my arm, I could not see the blue shirt underneath. Often, it is said, hunters in Labrador become weak from the loss of blood taken by these little pests.

After a month's sailing we reached Hopedale, the first of a half-dozen Moravian Mission stations on the coast. Here we met with our first Eskimos. Many years ago the Labrador Eskimos wandered about the country at will. They wore skin cloth-

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THE PRETTIEST GIRL ON THE COAST.

ing, lived in snow houses, had their chiefs and medicine men, and were happy. Now they are all gathered at the mission stations, their clothing is mostly of cloth (cut in Eskimo style), and their houses resemble the typical Irishman's shanty. Only the women of the farthest North wear trousers; the men of that region have usually one wife, although along the northern coast is one man who is the husband of three wives, while two others have their stepsister as a common wife. No longer does the medicine man hold his sway. Perhaps it is as well that the medicine man has been forced out of business. In olden times he visited the invalid, whether wanted or not, and having performed a few rites, selected, as fee, the most valuable thing he could find, and retired. The next day another medicine man did likewise, and unless the sick man recovered quickly, he recovered as a pauper. Despite the disappearance of the medicine man, the Eskimos still believe in the Evil Spirit. This I discovered one night down in the cabin, when I attempted, by way of a little sleight-of-hand, to remove a few coins from an Eskimo's ear and swallow a knife for the edification of the assembled savages. They watched me for a few minutes in silence; then they went home. During the rest of our stay there they avoided me, thinking I was possessed of a devil. The Eskimos also believe in the transmigration of the soul, and because of it, teach their babies to smoke, as a form of courtesy to the dead person whose soul the child may possess. During all the rest of our journey, we were continually surrounded by Eskimos, who, filled with curiosity, always came aboard. At one mission station eleven boatloads put out to meet us before we had let go the anchor. That day I counted over fifty on board the boat; some, like ravens, perching along the bulwarks; some investigating the mysteries of the galley, and others peering curiously down the cabin hatch.

Before long we had mastered a few Eskimo expressions, and, aided by the little English the natives had learned from the fishermen, we launched into desultory conversations.

One method of always pleasing the "husky" was by praising his wife, or *mishmishshaw*, as the fishermen dubbed her. Picking out the most likely of the fat, greasy ladies gathered about, we asked:

"Your *mishmishshaw*?" If the Eskimo said *Ahaila*, then we ventured upon her praises. "Fine *mishmishshaw*." This usually pleased him, and he answered:

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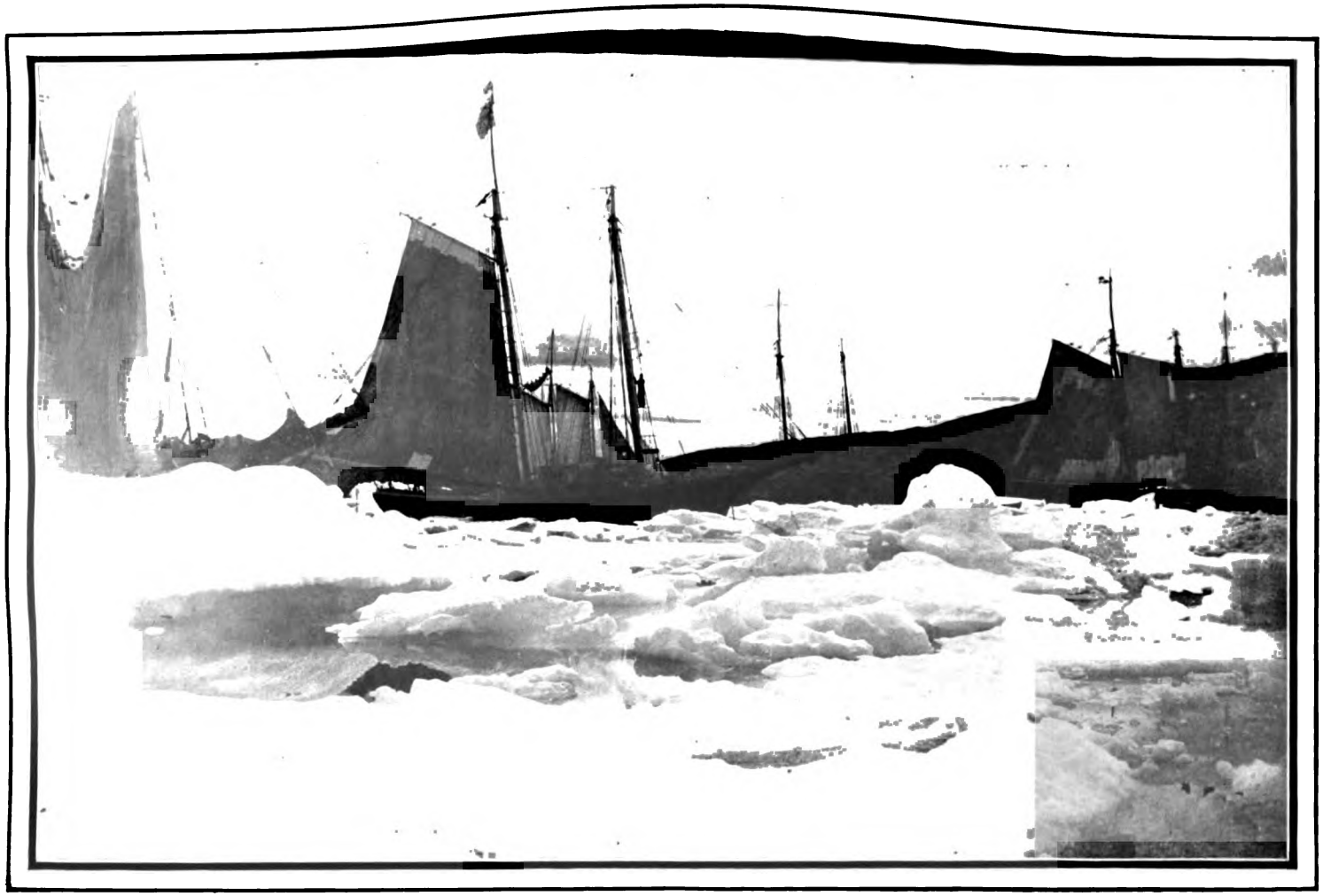

IN THE ICE PACK AT KIRPON HARBOR.

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"*Ananak.* Very good."

"Fine picininni, too," we continued, pointing at the open-eyed face of a baby, peering over the woman's shoulder.

"*Ahaila,*" answered the flattered savage.

"You truckie *mishmishshaw*?" "Truckie" is the fisherman's name for barter, and this question always amused the Eskimo greatly. Sometimes he laughed back, "I s'pose. How much?" and perhaps, if he were sufficiently urged, he might be willing to truckie his fatter half.

Truckie with the Eskimos was an interesting and profitable business. Upon starting out we provided ourselves with tobacco, underclothes, gaudy handkerchiefs, printed cotton, old clothes, molasses and sweets, as means of barter, and so we were not disappointed to find the Eskimos ready to trade. Always, upon coming aboard, they brought boots, bags, cuffs, and other trifles made of sealskin, and carved out of walrus tusk, for which they were willing to take a very reasonable amount of our truckie articles. When they found we were not a poor fisherman, but an "exhibition" (as the captain called us) from the States, they brought everything they could find for our approval.

Leaving Hopedale, we went on to Port Manverse, a desolate bay miles from anywhere, and there Henry and Mac decided to camp ashore. They wished to hunt caribou on a nearby island. Consequently, with a month's provisions, plenty of ammunition, and a small boat, we put them ashore. The poor lads! Two days after we left them a windstorm took away their boat. From that time on they could not get over to the island where the deer were, and they found nothing to shoot on the mainland. The day we returned for them they were eating their last bit of ship's bread. We came in sight of Port Manverse in the morning. When Henry and Mac sighted us in the offing they were overjoyed; they longed for one of Tom's plum duffs. We found, however, that the tide running out of Port Manverse was so strong, we could not sail in against it. After trying for two hours, we ran down the coast several miles to wait for a change. Henry and Mac saw our sails disappear with sinking hearts, for they did not understand our manœuver. All hope of plum duff, and everything else to eat, vanished. They sat down on the rocks with a feeling of desperation and—horrible appetites. The changing tide, however, brought us once more in sight. In another hour they were on board—and how those boys did eat!

During our month north of Port Manverse we visited Hebron, the largest of the mission stations. There we saw Eskimo women at work in the blubber house, slicing and trying out seal blubber. It was an unattractive sight. Hundreds of barrels of seal oil are shipped each year from Labrador to foreign countries, where it is mixed with other oils for use on machinery, and is also used in the manufacture of little candies called "jujubes."

At Hebron, Frank and I visited the Eskimos at home. "*Auksioni,*" cried the old Eskimo in answer to our knock, "*Auksioni!* Come in!" We opened the door slowly; then for the first time I saw and smelled the inside of an Eskimo's house. The hut, for it could be called little more, was not very impressive from without; a mere shanty, with a turf-covered roof, a single window, and a rickety door. Inside, however, it was quite different from anything I had ever seen before. The whole interior was a single room, twenty feet long by ten feet in width. The walls of planking matched well the rough-hewn rafters. A few skins and pieces of clothing hung here and there. Over the door, and in other conspicuous places, were homelike mottoes in Eskimo. Translated into English they would have probably read: "God Bless Our Home," "Wash Me, and I Shall Be Whiter Than Snow." Nothing else in the room showed better how thoroughly these Labrador Eskimos are in the transition period from barbarism to civilization. Through the single window, made from pieces of seal gut, carefully split, flattened and dried, sifted a few, faint moonbeams. In the end of the room farthest from the door, a long couch stretched from wall to wall. It seemed to be part of the building, but was so covered with skins that its supports were hidden. On the couch, amidst a confusion of furs, sat a young Eskimo "*mishmishshaw,*" with a baby at her breast. She was a pretty sight to look at, this little Eskimo wife, as she sat nursing her child. The polar bearskin behind her, and the spotted seal and deer skins surrounding her, gave her a rich background. To the left of the couch stood a small organ. One of the kind you pump with your feet, while you press the keys with your fingers. It was the smallest I had ever seen, not over

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four feet long, nor more than four feet high. Above the organ hung an old battered guitar. Both instruments were doubtless gifts of the missionaries. Beneath the tiny window, which was high up on the other side of the room, another couch, covered with soft dogskins, spread invitingly. On the floor were dogskin mats, rich in fur and color. A rough wooden table, with the dishes from the evening meal still upon it, stood in the other end of the room. An Eskimo lamp flickered on the table. Shaped like a great stone oyster shell, it held a quantity of seal oil, which, when soaked up in dry caribou moss, made a fairly good light. Far off in one corner of the room sat an old woman. Since the corner was dark, I could not see much more than the gleam of her eyes; but her outline showed an angular form and the thin hair of old age. All the time we were there she murmured weirdly to herself. The upper part of this end of the room had a few boards stretching from one wall to the other, thus making a small garret. Here were stored large rolls of dogskins, sealskins, dog whips, and all the extras of a well-regulated family. A tangled fish-net, dropping its loose ends into the room, made an attractive drapery. Although I discovered no way of getting up to the garret, except by an acrobatic feat, I imagined that some member of the family slept there. The whole interior had a peculiar smell, a smell which, like the taste for olives, must be cultivated before it can be relished. It was the true, greasy, Eskimo-plus-seal-oil smell, easier to imagine than to describe.

Now, Frank, catching sight of the little organ, invited some one to play. No one was willing, however, and so he sat down and touched a few chords. All were silent at once. Frank was not up for classical music. Before long he and I were filling the room with old college songs. The Eskimos were delighted. Whenever we stopped they clapped and laughed, and asked for more. Finally, inspired by their good humor, I sang a coon song that I had learned long ago. Always before when I tried to sing, the fellows had jollied me; but that

"TRUCKIE" WITH THE ESKIMOS WAS INTERESTING * * * THEY BROUGHT EVERYTHING THEY COULD FIND FOR OUR APPROVAL.

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night I had an appreciative audience. Every gesture, every facial expression, brought a roar of laughter from the savages. Although they did not understand the words they were greatly pleased with the song. When I got through, the men all gathered around. Some patted me on the back enthusiastically, and others cried, "*Annanak!* Very good!" The women, nudging one another, giggled. Our music, or rather our noise, had attracted all the Eskimos in the village to that house. All who could possibly manage it wiggled inside, and those who could not get in fought for a place at the window. By the time Frank and I had sung all the songs we knew, the old man gained courage. At our request he took down his guitar, and the maiden beside me sat down at the organ. After a few embarrassed false starts, the two sailed forth into the weirdest of Eskimo tunes; tunes with a unique strain never heard in any civilized music. I was sorry, at last, to hear them branch off into familiar Moody and Sankey hymns; but when every one in the room joined in, I was astonished and delighted. Better congregational singing I had never heard. Tenor, bass, soprano, alto, all parts were carried equally well, and in perfect pitch.

We stayed late that evening, singing all the old songs of our childhood. Some sang them in Eskimo, some sang them in English; but all felt that, in spite of race difference, there was a bond between us.

Our trip as far as Hebron had taken so long that Del and Hunt became impatient; and so, with packs on their backs and an Eskimo guide, they started to walk to Nachvach, our farthest point north, a distance of more than a hundred miles. This trip took a whole week, for mountains ranging from 5,000 to 8,000 feet in height, to say nothing of long and rugged bays, blocked their passage. Furthermore, the walking was unusually tiresome, for, where northern Labrador is not covered with loose rocks, it consists of treeless moss beds and bogs. During their land expedition, they learned much useful information, drew good maps, and killed some game. The day after the travelers left us, Frank and I had an excellent breeze, which took us directly to Nachvach. There we spent several days before the others arrived.

Nachvach Bay lies 1,100 miles north of St. Johns. It is a magnificent fiord, a mile or so wide, and twenty miles long. On each side great cliffs, more than fifteen hundred feet high, drop abruptly into the sea. Waterfalls, sea caverns, snow-banks, all things enchanting are to be found there. Wild, unexplored mountains, many of which we named, tower up on all sides. Fifteen miles in, on the northern bank, is a waterfall of tremendous height. With cascades above, and cascades below, and a single leap of six hundred feet, it dashes over a twelve-hundred-foot cliff. Several miles farther in we found a lonely dwelling. There, miles from every one, Mr. Ford and his family, Hudson's Bay Company agents, live all the year round. They seldom see any white people except those who come once a year in the Hudson Bay steamer.

THE SCHOONER IN W

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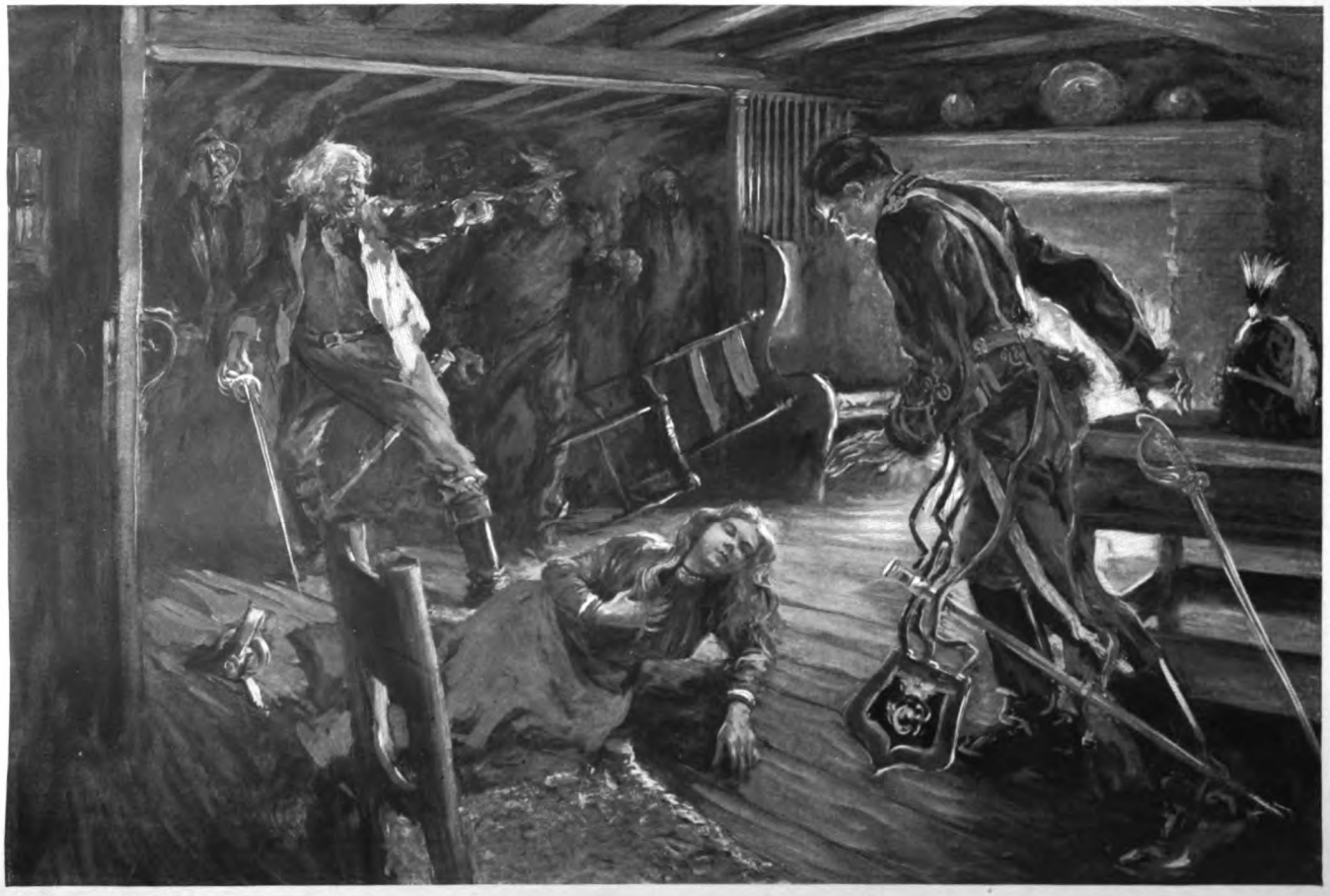

"YOU HAVE KILLED HER," HE SAID.

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THE ALARM BELL

By H. B. Marriott Watson

INTO the town of Hornden, at three of the clock on a mild December day, trotted Captain Geoffrey Monk and his troop of horse. The sun shone pale in its western descent, and pale lay the shadows on the road; the bare twigs on the trees moved weakly, and the breath of the marshes was rising about the town. Monk dropped from his horse before the Crown, and stalked into the inn, accompanied by a noise of spurs and boots that drew the attention of the company already assembled. The serving-maid stared at him with admiration, for he was tall and fresh and handsome, and had such a confident air as is apt to take all women; nor was he arrogant, as he might well have proved in that swaggering uniform. He fell into talk with the company, drank to its health, had some criticism of Boney to offer when the topic of the war was broached, but he appeared quite modest withal.

"They keep me here," says he with a comical smile of dismay, "I would be doing my best for the Viscount in Spain, and I am set to lubberly work like this."

"Why, what work is that?" asked one.

Captain Geoffrey Monk stared at him.

"I will give you two guesses," said he, grinning; "what d'ye suppose my troop does outside? Whither d'ye suppose it's for?"

"And it's guessed at first shot," cried a sharp-witted townsman. "Ye're for Holton Marshes."

"My friend, you've a shrewd head and a quick tongue," said Monk. "Holton Marshes it is."

At the words the door into the further room, which stood ajar, opened wider, and a small white hand was visible upon the oak, holding it so.

"Why, what would you do there?" inquired a fellow with a stupid face.

Captain Monk turned on him, and smiled more broadly.

"We go there for our health," said he, "'tis good air in the marshes," and at the sally the shrewd townsman laughed.

The serving-maid left the room, and was seized suddenly as she entered the interior chamber.

"Kitty, who is that?" cried the owner of the hand in a whisper, "Tell me who that is."

The news had been already brought into the inn by inquisitive natives who had mingled with the troopers, and Kitty was armed with information.

"'Tis Captain Monk of His Majesty's Hussars," said she glibly, "and a fine gentleman. Would you have a sight of him, Miss Barbara? See, you can spy him through the door from where I stand."

"No, Kitty; be silent. Heard you not whither he is going? Holton Marshes! What does he go there for? Here, give me your cap; on my faith I will know more. Give me, silly; I will have my way."

And so saying, the impetuous girl, despite the remonstrances of the serving-maid, took possession of the cap and apron and slipped softly into the tap-room.

She stood wiping her glasses quietly with a napkin and casting an occasional glance toward the group of men, but it was not for some time that she was noticed.

"Well, gentlemen, a glass of mulled wine, and we must part," said Monk. "Hi, child ——" and here he stopped, stared into Barbara's face, and pursed his lips together. "A glass of mulled port, child," said he slowly, and watched her as she went about to execute his order.

Barbara set the glass upon the counter, and looking up to him for payment, met his eyes.

"How far is this from Holton, my dear?" he asked gravely.

"'Tis a good fifteen miles across the marshes, sir," she answered, sweetly.

Captain Monk sighed, and a little color flashed in his cheek.

"'Tis a long way; 'tis too long," said he, smiling.

"Is it there you are set for?" asked Barbara, giving him back his smile.

"Aye, worse luck," said Monk, still gazing at her.

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Barbara leaned over the counter, her lips parted, so that her white teeth shone slightly through. "Are you preventive men?" she asked almost in a whisper.

"Damme, no," said Monk, sharply, "Would you fling that name at me? 'Tis a scandal that the job should be given me. It appears that these preventive men are such fools that they cannot catch their own free-traders, and so I am sent to teach them their business. And that's all, Mistress Pretty and Miss Questions."

He laughed, gently tapped her cheek with a finger, drank the wine with "To your complexion, child," and, bowing, turned to go.

But he was scarce through the doorway of the inn before Barbara had rushed from the tap-room, and was tearing off her ensigns of office.

"Kitty, Kitty!" she called "Oh! you wanton! I want you! I must have my horse in harness at once. Let the ostler see to it. I am going forthwith. March, be off! I am in an abominable haste."

Miss Barbara, her cheeks flushed, her eyes sparkling, was seated in her gig within ten minutes of her order; and as the sound of the troopers faded away upon the high road, her long-legged horse was being whipped into a deep and narrow lane that led out into the marshes between Hornden and the sea.

Night had fallen some time when she brought her gig to rest before the gates of a big house; but a thin moon shone faintly on the stone pillars, stained with damp and dark with age. A weedy carriage road, ugly with moss and speaking loudly of decay ran from these gates towards the house, into which the girl came presently, bright from her drive, the whip still in her hand. A fire of logs burned in the hall, and before it sat a man, short of stature, of a portly cast of body, gray of hair, and ruddy of face. He was smoking a pipe, and he spat into the ashes with a curious suggestion of uncouthness.

"Father," broke out the girl eagerly, "I have some news."

Squire Brabant looked up and surveyed her sharply.

"What d'ye mean by flustering in like that?" he said, pettishly. "You're quite grown enough to know better." He spoke with a burr in his voice, which enhanced the rusticity of his appearance.

"Father, there's a troop of horse on the way to catch the free traders," burst forth Barbara.

The squire took his pipe out of his mouth, frowning at her.

"What's that?" he asked.

His daughter repeated her information, and added to it, "'Tis a Captain Monk," said she. "I was in the tap-room of the Crown at Hornden. They are specially despatched for that very office—to catch the smugglers."

"Pink me," said the Squire, with his eyes twinkling, "pink me, they be tired of Mullock. The like of him could never catch a trapped rat—not he. So down comes this young bantam. Damme Barbara, we'll give him a dance, we'll lead 'un a dance."

"'Tis said," observed Barbara anxiously, "that the Government is resolved to put down the trade. 'Tis said that it has gone on too long and reached too great a perfection."

"So 'tis, so it has," assented the squire, chuckling.

His daughter looked at him inquiringly. "Father," she said hesitatingly, "is it not time to stop? Sure, I believe that this means a danger for you."

"Stop!" cried the squire, opening his eyes. "Hang me for a felon! Not I. Why, 'tis a good time to seize on for a run, child. Master Bantam will not look for anything so soon He will be busy seeing where he sits and how his bed lies. Very well; we'll run under his nose to-morrow night."

The village of Holton lay sheltered from the ravages of wind and sea under the landward brow of a great cliff. Its main street, of scattered cottages, red-roofed and roughcast, passed untidily down this eminence towards the beach of sand, where the open water broke all day and all night. From this piece of coast the land ran back, of an even flatness, into low lying marshes and great spaces of field, sown thinly with dwarfed and spreading oaks and elms. At one point the sea had broached the defences of the sand, and had rushed inland in a narrow channel or creek for three parts of a mile. At low tide this bed lay bare and pebbly, but at the flow the creek brimmed like a river past Holton Manor. It was upon this full flood of water that Barbara looked down from her diamond windows on the first story.

She held a piece of broidery in her hand, and now she set it hastily down, put on her

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Leghorn hat, and swiftly left the room. A lean cold stairway, descending through the wall in that ancient house, led to the creek itself, and from a stake in a buttress that rose from the water swung a boat upon the tide. Barbara Brabant stepped into this, and, pulling at the sculls, sent the boat down towards the sea. Two hundred yards or more below the house the main road from Hornden crossed the creek, and here she ran the craft ashore and leaped out. Already round a distant corner she could see the dancing colors of the first of the troop, and presently Captain Monk himself jerked into view. The noise of the hoofs was like thunder on the air. Captain Monk reined his horse with an exclamation of surprise.

"What do you here, child?" he asked.

"My father lives here, sir," said Barbara, demurely.

"Why, I hope he is clear of the trade," said Monk with a frown.

"Oh, sir, he is held in great esteem by all," she made answer reproachfully.

"There, my dear, that is right. I am glad of it," said the captain, smiling, and, tempted by that amazing prettiness, thrust out a hand hesitatingly towards her. He glanced quickly at his men, and then, apparently deciding that what he designed would be improper in so public a view, he raised his hat and rode on. Barbara's eyes went after him.

"Father," said she to the squire, at their mid-day meal, "Captain Monk is a very determined man, I do believe."

"Who the devil is Captain Monk?" asked the squire, staring at her.

"'Tis the officer," she stammered in some embarrassment. "'Tis he I told you of that commands, and is ordered to put down the trade."

Squire Brabant laughed loud. "On my faith, a pretty young crowing cock," he said; and then, as a suspicion took him, his active eyes searched her. "What know you of him? Where d'ye hear of him?"

"He has entered Holton. I saw him with a parcel of his men this morning," said Barbara, defiantly.

"So he has come," sneered the squire. "And how know you he is determined?"

"He has that look—he looks hard and purposeful," she explained, reddening.

"Ho! Does he so?" cackled the squire. "Well, he shall have his chance. For one hundred years have the Brabants run their vessels, and they are not going to give up now for a red uniform, however smart. He shall have his chance this very night."

"Will you really run to-night," asked Barbara, anxiously.

"Yes, indeed," said the Squire. "We cannot delay. The schooner has given Mullock the slip by Haven Heads ere this, and we shall have her bowling in under this breeze to-night."

"But Captain Monk and the soldiers are here," protested the girl. "All the better," grinned Squire Brabant. "Steal under their noses. They will not smell us, I warrant."

The sea was pitching noisily in the darkness when Barbara left the lights of Holton village and crawled up the cliff. The cold December night was full of wind, and her gown blew about her. From below the signal station on the crown of the hill she could look down into that great blackness. Her father was abroad in the night, and she was too restless to stay at home; she expected something, she feared something, but knew not what. Suddenly a speck of light broke out, far away upon the Channel, and as swiftly disappeared. Barbara fixed her gaze upon it earnestly. Was it the schooner reaching for home? As the thought crossed her mind she was aware of a sound of voices even above the roaring of the sea-winds, and she turned about. Above her, near the signal-station, flashed a lanthorn. It might very well be the squire on the lookout; and with this thought in her head she climbed to the top of the cliff and called "Father!"

The light glanced on her.

"Who is this?" said a voice, and to that instantaneously ejaculated "My faith, 'tis my pretty maid."

Barbara started back, for she recognized the figure, though the face was in darkness.

"Captain Monk!" she cried, and was thrown into confusion.

"Why, my dear, 'tis a blowing night to be out here," said the captain. "We seem destined to meet. But I am glad you were not afraid of the wind. Give me that lanthorn, Halliwell," and the stream of light fell on her face again.

Captain Monk dropped his arm, and the light lay waste upon the grass. "What fetches you up here, child?" he asked.

"I am come for the breeze, sir," said she quickly; "you must not think that we who are natives here fear a wind like any town person."

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"No, child, you are brave, I swear," said Monk, and then sharply to his companion, "There she goes again, Halliwell. She is nearer to the west, now. Do you watch the coast for any answering signal? 'Tis suspicious in itself to throw such flashes."

Barbara's heart beat a little faster.

"What is it, sir?" she asked timidly.

"I know not, child. I would I did," said the captain of the Hussars.

At that moment Halliwell uttered an exclamation which brought Monk to his side.

"Down there, eastward," he said excitedly. "There it flares. 'Tis by Ashley Cliff, as they call it. 'Tis an answer, or hang me for a frog-eater."

"What is it? Oh, what have you seen?" cried Barbara, prudence flying with the excitement of the situation. Captain Monk looked at her; he stood wrapped in his long cloak, for an instant, still and silent. Then he put out an arm, and, swiftly drawing her to him, kissed her through the darkness.

"Child, best go home," he whispered, and, moving, ere she could recover, was gone into the night.

Barbara, her lips afire like her fast pulsing heart, stood motionless for some minutes, and then, coming back to herself with a firm resolution, sped down the cliff towards the village. She entered the inn, and looking about the company in the taproom, beckoned to a tall, strong fellow that was drinking. He followed her without a word.

"Hankin," said the girl, "where is my father?"

"The squire's over to Ashley Cliff, miss," answered the man.

"What do you here?" inquired she imperiously.

"I be here to watch 'un, miss," said he. "I have 'un in the inn there, and I be pumpin' 'un."

"See you here, Hankin," said Barbara with authority. "There is grave news, for Captain Monk is not so blind nor so careless as he is reckoned. He has seen the signals passed between the schooner and Ashley Cliff, and no doubt he will call his men thither when the time is ripe. You must carry this message to the squire."

Hankin touched his cap, and presently shouldered his way into the night, while Miss Barbara returned by the melancholy lanes to Manor House with a sense of satisfaction.

"How did he dare?" she said fiercely to herself, and then, "He shall learn manners; he shall be well whipped for his pains. How dared he?"

But meanwhile Hankin had reached Ashley Cliff, and communicated his news to the squire. He rapped out an oath and was silent; then he grinned, and gave some orders to the smugglers about him. Presently lights were flashing again out towards the ocean, and from the horizon lanthorns spoke to the shore. The squire leaped on his horse, and, followed by a number of his men, rode furiously for Holton. A wise general, he had changed his tactics, and cantered home in an admirable good humor, as he anticipated the chagrin of the soldiery. And about that time Captain Monk with a party of his men was making his way along the broken cliff towards Ashley. They tramped in a dead silence, though the screaming winds might have covered their voices had they talked, and, under the guidance of one of the local preventive men, were established at length in a hollow within earshot of Ashley Gap. Down below rose the sound of the sea winds moaning in the caves; but slowly the gale abated, and presently a light flashed forth some distance off shore, and was answered from below. Then in a sudden lull a crepitation of sound rustled from the beach, and it seemed to Monk that there were voices on the air. Again the light shot forth, and this time was visibly nearer. The military lay very quiet, watching that vast spread darkness, out of which came innumerable noises; and now at last the light shone close by, and the dark vision of a schooner under topsails flashed and went out. Then, too, rose up the sound of oars.

Monk whispered his orders, and in single file the men trooped down through the gap till they were all upon the beach. Within a hundred yards loomed the neat figure of the schooner, with her nose ashore, and about her clustered the smugglers.

"Ready, men! Forward!" commanded Monk, and the soldiery, formed in line,

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marched forward. The smugglers paid no heed.

"Hi! there!" shouted Captain Monk, "you are caught, my men."

At the sound of his voice signs of perturbation broke out among the smugglers.

"Come, 'tis of no use to resist," said Monk. "You are outmatched. No bloodshed."

By this time he had come very close, and a man spoke out of the gang before him.

"What does this mean?" it said. "Who are you that dares to come interfering?"

"My man," said Monk, complacently, "I know you. You are done at last. Better give in. You are outnumbered."

He was now right up with them, and at his word the troopers surrounded the half-dozen men, who, however, made no efforts either to escape or to resist. On the contrary he heard angry tones, and a lanthorn was turned on him.

"God's sake, 'tis the soldier captain," said someone. "What is't you take us for?"

Captain Monk had a sudden revulsion, but his voice rang bravely, "My lads, 'tis very suspicious," said he, "these exchanges of signals. What does this schooner here? 'Tis my duty to overhaul her."

"You are welcome," said a surly voice. "As for the signals, why, 'tis well known on this coast that we help a boat home so; and as to the place, why, Ashley Gap is known all the marsh over, and she loads a cargo here from Framber to-morrow."

It said much for Captain Monk's spirit that nothing of his humiliation was apparent from his bearing. The schooner was searched, nothing contraband was found, and amid the jeers of the sailors the troop marched off, the men obviously dejected, their captain still carrying himself with an indifferent and resolute air. But the laughter that rose from the sands, as they climbed up the Gap, rankled deeply. Yet fortune had something more in store for him that night. On the cliff, the form of a man, speeding in great haste, was visible against the skyline.

"Who is that?" said Monk suspiciously, and, a little later, challenged the newcomer.

"'Tis me, sir," he was answered. "Robins, that was left by the village."

"Well, well, what is't?" growled Monk, inflamed by his failure.

"Why, sir, there is boats off shore and lights in the bay," said the man, breathing hard.

"Damme, is it so?" said Monk eagerly. "Then my boys, we have 'em yet. 'Tis a trick of their's. Stap me, we shall have 'em yet."

And at once he issued his orders, and the hussars hurried back towards Holton as fast as their feet would take them. The water by the village lay black as ever, but the troopers spread themselves along the beach in silence. Their presence there was unsuspected, for Monk had avoided the village in order to keep his plan secret. Besides, the free-traders could not be aware that their trick had been discovered. Yet the sea was dark, and nothing was audible. The free-traders had fallen back upon the old dodge of sinking their goods under floats, and these had been picked up by boats from the shore. All at once a noise of rowing issued from the waste before them. Monk summoned his men to attention by a signal, and they waited on the height of expectation. The oars drew nearer, and with them low voices; then the rowing ceased, and there was a pause in which an argument seemed to be proceeding. But at length the boat resumed its passage, and each dip of the sculls brought it nearer to the watchers who now lay upon the sand, lest they should be descried. It was by this time clear to Monk that the boat in that implacable darkness was uncertain of the way; and in truth the smugglers were feeling for the entrance to the creek. But they had run too far to the west, and now the nose of the craft grounded softly. An oath from the smugglers was followed by Monk's clear voice calling on them to surrender. At once cries of alarm and anger arose, and confusion fell on the surprised men. Shots were fired and thrusts exchanged; and in less than five minutes three of the free-traders were running inland across the flats, one struggled in the hands of his captors, and one lay stretched upon the sands, his quiet body lapped about by the advancing wavelets.

"'Tis a good haul, and there's no question," remarked Halliwell to his captain complacently.

But Monk shook his head. "'Tis but

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one boat of several," said he. "She must have carried cargo for many. Come, see to those men, and follow me. We must go further."

"Why, there's the creek we entered this morning," said the lieutenant suddenly.

"'Tis so. Damme, I had forgot," acknowledged Monk. "Where does it lie? We must make for it."

They found the mouth of the creek at last, and here Monk made new dispositions.

"'Tis possible this was the first boat, or maybe not," he explained to Halliwell. No doubt they were to go by the creek. See, 'tis high tide. Stay you here at the mouth and I will push in and see. If they be up the creek we have 'em for a certainty. But they may be still in the bay. Keep your ears open. Nay, I will take none with me, for I shall be back presently. The shots have woke the village, I doubt not, and they have certainly alarmed the smugglers; I will spy out the land."

On these words Monk disappeared along the creek. He pushed his way rapidly inland, keeping to the left bank, until he came upon the ferry, silent and deserted at so late an hour. The roar of the sea sank lower as he went forward, and the immediate noises of the body of water in the creek became more insistent. He grew aware of a washing on the sandy banks where the tall reeds and grasses rose so high that they might have concealed a force of men. Upon the further edge of the creek a black piece of wood rendered the night even more opaque. Yet no sounds other than of the water reached Monk's ears, and nothing spoke to the passage of any boats along those banks. But presently he found his progress arrested by a wall, which ran down to the water. He followed it the other way, and soon stood before tall gates. In front of him and behind the gates rose a large and wandering mass of deeper night. Monk considered it with a puzzled brain, and then a light broke upon his memory.

"Why, 'tis what they call the Manor, I believe. Maybe they can give me some news," he exclaimed to himself, and, feeling at the gates, found the bell-rope and pulled it sharply.

Barbara Brabant lay within the curtains r bed betwixt sleep and waking. The of the free-traders below, and their hilarious celebration of the successful run, had driven her to her room some time since, and by her open window entered now only the lapping of the water below. Suddenly on her twilight consciousnes sounded with a great clangor the alarm bell that swung upon the wall outside her window. Its deep note boomed on the night, hummed like a monstrous shell that is full of sound, and died tremblingly away. Barbara started up in her bed, and putting her head out of the window, endeavored to pierce the darkness. Then she hastily put on her gown, and, throwing her cloak about her, went down into the hall. The fire was still burning there, and from the cellars below came up the voices of the smugglers, seeming now not joyous and triumphant but bitter and angry. In that preoccupation the alarm bell had not been heard by them. Barbara opened the hall door and went into the night, passing down the avenue to the gates. These she opened, and was confronted by a tall figure.

"Who is it?" she asked, "and what is it? Have you news?"

"Nay, I am come for that," answered a voice, which she did not recognize as Monk's. "I want to see Squire Brabant at once."

He entered as he spoke, and shut the gates for her. Barbara stood, uneasily suspicious, in his way. "Who is it?" she asked again.

"Why, Captain Monk to see Squire Brabant," was the answer. An exclamation broke from Barbara. "You cannot see him sir. He is abed, and can see no man so late."

"Faith, my girl, I must see him. 'Tis pressing. Captain Monk's compliments to Mr. Brabant, and he will take it kindly if Mr. Brabant will afford him a few minutes of his time, apologizing for the lateness of the hour."

Barbara hesitated; the situation seemed to her dangerous; yet she knew not what to do, or how to change it. She was thrown into an agitation, yet a plan vaguely formed itself in her head as she mechanically walked back to the house. The hall was still empty, and she led Monk through it, her cloak and hood still about her, and brought him by a stairway towards a back part of the house. Here was a room, lighted but dimly by a warm fire and no more, which

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served her as a sitting-room. She turned now and confronted Monk.

"Sir," she said quickly, "I will see if Mr. Brabant will be able to see you." She moved swiftly to the door; she had him safe now, and out of sight and sound of the free-traders. She could excuse her father on the score of illness; in half a dozen ways she could put the officer off, and so avoid a meeting to-night. But as she went the very speed of her carriage disengaged the cloak from her face and head, and the slender firelight fell on her. Geoffrey Monk cried out in amazement.

"You!" he said.

Barbara's heart pulsed fast; she met his gaze helplessly, even appealingly.

"Who are you?" he inquired sharply.

The girl's eyes pleaded for mercy, but her answer came before ever she knew.

"I am Mr. Brabant's daughter."

Monk stared, and then laughed awkwardly. "Troth, Miss Brabant, I fear I owe you an apology, but if you will masquerade as a village girl—"

Barbara's face glowed, and she broke in with spirit. "And why is not a village girl to be protected from your insolent advances?" she demanded angily.

Monk shrugged his shoulders, for he had no answer, and she looked more beautiful than ever. But the girl came back to the situation, and something of her former timidity returned.

"I will see if my father can see you," she said coldly, and shut the door on him.

She descended into the hall, and by a long corridor gained a room in which the voices of the smugglers in the basement were audible; they rose still angry, furious even and inarticulate.

"They have drunk deep," she said to herself, and at once abandoned any idea of bringing her father to his unwelcome visitor. No; she would go and report that the squire was indisposed. As she turned away the volume of the voices lessened and retreated. With her ears to the stone staircase she listened intently.

"They are making for the stairway in the tower," she said, and of a sudden there came to her, in a tide of terror, what this portended. Her room was accessible from the stairway, and the captain of Hussars was in the room.

Barbara flew along the passage, and climbed out of the hall by the broad oaken stairs, and at last reached her sitting chamber with a riotous heart. A voice rang out from within; she turned the handle of the door, white as her tucker, and there, entered by the other door, a candle shivering in his hand, stood Squire Brabant, with half-a-dozen rough faces behind him, gazing upon the captain in bewilderment.

"Who is't y' are?" demanded the squire in his rustic voice, now harsh with drink. "And what d'ye want?"

One of the free-traders uttered an oath. "'Tis the captain. By Heaven, 'tis he, sure."

Monk, himself in a haze of astonishment and suspicion, bowed nevertheless. "I am Captain Monk, of his Majesty's Hussars," said he. "Am I to assume you are Mr. Brabant?"

"Ye are Captain Monk, are ye?" said the squire fiercely. "And what d'ye come here for?"

"I am come, sir, on His Majesty's business," said Monk stiffly, his sharp eye roving over the various faces.

"Are you alone?" inquired the squire, after a pause; and going to the window peered out. He nodded his head, grinning pleasantly.

"And what want you with me?" asked the squire again.

Monk watched the faces. "There was a run made to-night," said he, speaking slowly, "and some of the cargo has been traced as far as the creek's mouth. I wanted to know of you, Mr. Brabant, if you had any news or information you could give me with regard to it."

"Damme, yes, my cock," said the squire, genially. "Ye will find it all below, all less summat that I have not done with yet."

But at that one of the free-traders, with a fierce face and a shock head, broke out virulently, "'Tis he that's killed Lane, as Rackham has just fetched news. Let's ha' done with him," and other voices joined in his sentiments.

"There's the creek," said one, "let's do for him."

The squire put up his hand. "Hold your tongues, you toads," he said savagely, and glowered with a spurious pleasantry upon the intruder.

"Mr. Brabant," said Monk, drawn to his full height and speaking very quickly, "you have made an admission which I would fain believe to be a jest. Yet it is my duty to

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tell you——" he broke off and went on in another tone: "Who are these?" he asked. "Who are these who appear friends of yours and whose villainous faces speak for themselves? Sir, you stand in a greater peril than you have ever conceived."

"Is it so?" said the squire, smiling malignly over his broad face. "By God, young bantam, you know not in what peril you stand, it seems. D'ye suppose I gave you the information to carry away with you? We cannot do with such as you here," and he drew a sword.

Mechanically Monk's weapon clinked out of its scabbard, and he eyed the free-trader boldly. It was to be a butchery then. But the squire turned on his followers, and, swearing broadly, bade them stand back. He advanced into the room and put out his blade. Monk met him.

By the door, which was ajar, and partly under cover of it, stood Barbara, her bosom heaving, her face pale and terrified. The antagonists fell on, and the chamber sounded with the clatter of the steel. Despite his ungainly appearance the squire was agile and nimble, and as he thrust and parried, a vicious smile dwelt on his beaming features. Barbara knew nothing of duelling, and she could not tell which of the two was obtaining the advantage. Now one gave way, and now the other, but to the girl each retreat spelled death, and the drama was passing in a mist of blood before her eyes. Confusion fastened on her; she gasped, struggled wildly for her breath, and, all unconscious of her own action, shot forth into the center of the room between the combatants.

"Father! Father!" she called despairingly; and the next moment went down under the shining blades upon the floor.

Captain Monk dropped his sword, and, bending swiftly, lifted her in his arms. The squire stood, his brows in a frown, his eyes upon the body of his daughter. He uttered an oath.

"You have killed her," he said.

Monk answered nothing, for he was fingering in the bosom of her dress, and the squire's eyes traveled to his own sword, where the point was stained bloody. He hurled it from him with a deeper oath.

"Why did she do it?" he muttered. "Why did she do it?"

The girl's dress was open about her oulders, and Monk now looked up. "'Tis not serious," he said quietly. "'Tis more the shock. It has taken her under the shoulder but slightly, thank God."

"Why did she do it?" muttered the squire, and then, the sense of this statement making its way to his mind, "What know you of her?" he asked roughly.

Monk lifted the girl and placed her upon a couch that stood along the wall. Then he turned about.

"I have encountered Miss Brabant once or twice for a few minutes," he said. "I have seen her to be a beautiful woman, and now I know her to be brave."

The squire regarded him with a searching look. "Ho!" was all he said, and went and leaned over his daughter. Then he turned again: "Knew you that you were within an ace of your last breath, young man," he asked sharply.

"It may very well be that I owe my life to Miss Brabant," said Monk, with a look at the silent gang of smugglers.

"Damme, you do," said the squire, grinning. "I am not used to make mistakes with the sword. By my life, you do."

"She should be tended at once," said Monk, abruptly. "I have staunched the wound."

"She shall be," declared the squire, and suddenly gave an order to the smugglers which caused them to retire.

Barbara opened her eyes, and they fell on her father.

"Why rushed you in, Bab?" he asked bluntly.

She looked at him in fear, and then her glance drifted to Monk, and she sighed.

"Nay, there is none killed," said the squire, chuckling. "But 'twas you came nearest to it."

Captain Monk went over to the couch and took her hand. "Good-bye, Miss Brabant," he said. "May God give you a long and happy life!" Then he turned to the squire and picked up his sword. His eyes looked sternly into Brabant's shrewd face. The older man was watching him, and grinned.

"No, ye are free to go," said he. "The door is yonder." Monk flushed slightly, and he stood for a time in silence. He bit his lips.

"Mr. Brabant," said he coldly, "it is my duty to warn you that, owing to certain suspicions, I must search this house and the neighborhood to-morrow for contraband."

The squire burst into hoarse laughter.

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"So be and welcome, my lad," he said. "Come and search; we are all good subjects here. But I warn ye you will find naught."

"Nor ever after, father," whispered Barbara.

The squire said nothing, but drawing a handkerchief, took snuff from his box.

"You are welcome to come," said he.

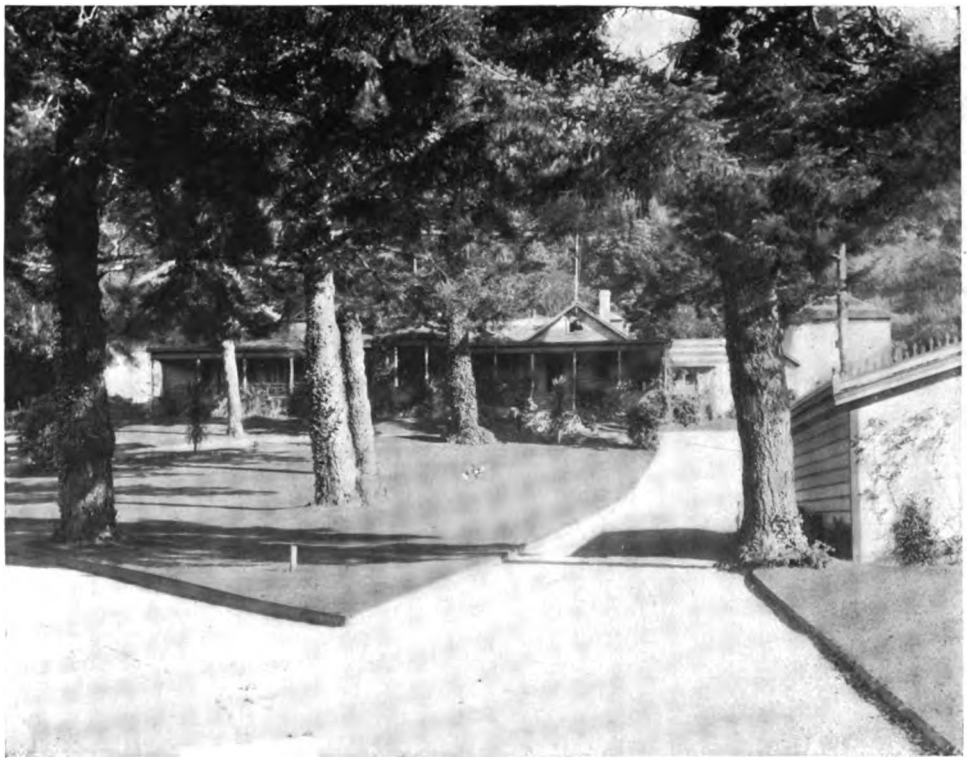
Monk frowned; his glanced drifted to Barbara and lingered on her; he shrugged his shoulders with a little smile. "Very well," said he; "if I am welcome, sir, I will certainly come;" and his reluctant eyes leaving her he turned, bowing, to the door.

SOME SPORTSMEN'S CLUBS OF CALIFORNIA

WHERE SPORT IS PERENNIAL

By Annabel Lee

THE California sportsman looks for no weather days on his hunting and fishing calendar; forsooth all days are field-sport days, for climate has much to do with the pleasure of outdoor pastime in the Golden State. When the season for one kind of game closes, that for another opens, so every day in the year, canvas-coated and canvas-leggined men for the most part make up the crowd on the first ferry that leaves



HOME OF THE COUNTRY CLUB, POINT REYES.

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for Sausalito, the gateway to the hunter's favorite haunts on the Marin County shore. It is here that the sportsman's journey by water terminates, and that by land begins; here within an hour's ride of San Francisco, and within the city limits of Sausalito that wild deer have been seen; and where else on the land of the globe can you equal it?

The wooded slopes and deep gulches of "Old Tamalpais" are an overpowering decoy to the knights of rod and gun, and here many great sportsmen's estates, called country clubs, abound. These are innovations of the hunter and angler, and are a result of their united efforts to check the growing scarcity of game. Each year, vast tracts of land have been leased and dedicated to sport, and the number of clubs is constantly on the increase. The negligence of tardy organization for preservation is due no doubt to the geographical and climatic influences, which have made this State the sportsman's Eden since the halcyon days of "49." Why? Because nature has offered, with prodigal hand, mountain and sea together and stocked streams, valleys and steeps with the biggest and best either to hunt or to fish. Small wonder, then, that the question of preserving the game of California did not occur to the sportsman until he felt the dearth of it. The migration of the wild birds to southern fields, where the young wheat is abundant, and their slaughter by the pot-hunter, brought about reliable and rapid organization of country club life; and these hunting regions are growing apace.

A westerly wind was sending great rolls of fog before it as I crossed on the ferry the other morning to visit the Country Club, which has the largest and most attractive shooting territory of California. This organization was formed a little over eleven years ago, and at that time the estate amounted to a principality, for it contained 76,000 acres of mountain, marsh, lake and coast line. It is in reality an auxiliary of the Pacific-Union, the pioneer club of San Francisco. To become a member of the Country Club requires an extravagant use of red tape; first it is necessary to join the Pacific-Union, and then wait patiently for some sportsman to die or withdraw from the

SCULLING THROUGH THE SLOUGHS OF SUISUN MARSH.

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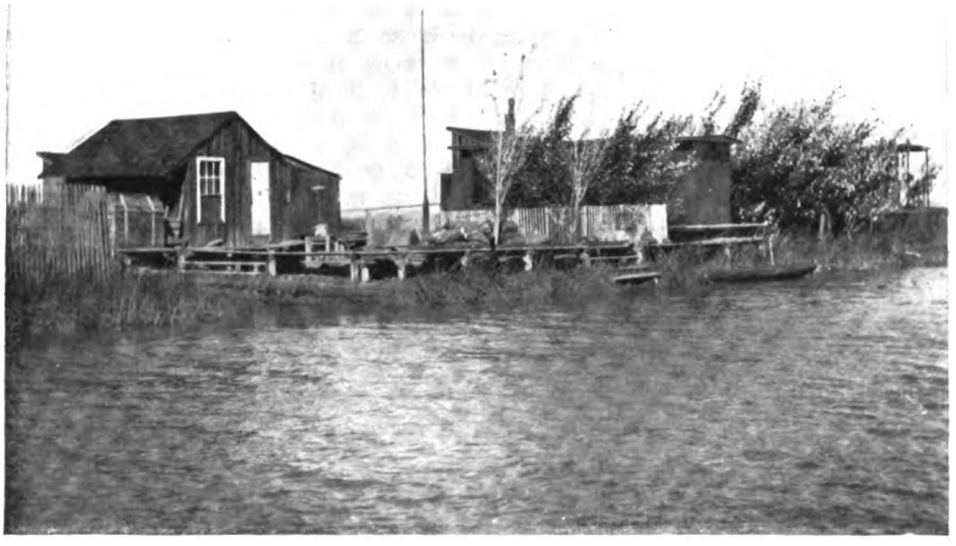
shooting association, and it might be added that he is more likely to retire by the former route than by the latter. The membership is limited to one hundred and twenty-five. The register is a full one at all times, and naturally it is a conservative club, and its members represent the aggregate wealth and business enterprise of the Pacific Coast. The preserves are bounded by the Pacific Ocean and Tomales Bay on three sides, and the members of the club have shown themselves true lovers of nature, for they have stocked their estate with the choicest song birds of Europe, and these, with the native species, fill the pines with melody.



HEADQUARTERS OF THE IBIS GUN CLUB.

The house is a long rambling structure, admirably appointed for ease and commands an excellent view of Bear Valley; there are stables of ponies, and some of the very best of imported hounds, setters and pointers are found in well-kept kennels. Two snipe marshes give fine compensation during the season and supply no small part of the hunter's pleasure in this domain; and there are seven lakes, covering from six to sixty acres, the most famous of all being the lake that nestles on top of the cliff one thousand feet above the sea, to which there is a gulch opening to the roar and spray of old ocean, and through which sea gulls are constantly flying. Deer, bear, coon, "lion" and wildcat roam the woods at will; mallard, teal, canvasback, widgeon and quail are shot from October to February, and the trout and salmon season is one of great activity.

While the Country Club can boast of being the richest organization of sportsmen in point of numbers, extent of preserves and aggregate wealth of its members, it cannot lay claim to the distinction of being the pioneer country club of California. To the Tamalpais Sporting Club belongs that honor. Twelve years ago, a few enterprising business men with a passion for outdoor sports leased a tract of land from the Portuguese, for the purpose of preserving fish and game to the interest of its members, and named it the Tamalpais Sporting Club. The tract contains 18,000 acres of land, and reaches from Richardson's Bay to the Pacific, and it would be impossible to find a more ideal location; an elevation of 2,000 feet above the sea, and commanding a view of the harbor of San Francisco, ten miles away. Its membership of fifty at the time it was established has since been cut down to thirty-five, and these find abundant sport

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in their lofty regions. But it is a club without a house, and no effort has been made so far to build one. The sportsmen prefer a deer camp in the green caravansary to a well-appointed home. At night, the camp fire burns, and around it the sportsmen spin yarns beneath the stars and above the lights of San Francisco across the channel.

The Point Reyes Sportsmen's Club was formed by men of San Francisco upon exactly the same plan as the other clubs, and is one of the recent organizations, having a record of but one year's sport to its credit. However, the preserves are rich in natural ground, and have in their possession some of the territory once leased by the Country Club. The Point Reyes Club preserves comprise 22,000 acres of choice hill and low land, and are patrolled by two gamekeepers. The membership is limited to twenty energetic sportsmen, who usually hie to the redwoods on the afternoon train, and if necessary return on the following day, with no more concern from the standpoint of preparation than if they were going to their suburban homes across the bay.

This club is not provided with a house, and its members, being men of affairs, worn with the cares of office and court-room, like nothing better than to sleep beneath the green boughs and rise at the sun's first signal from the Sierras, to enjoy the keen sport at hand. Like the Tamalpais and Country clubs, the Point Reyes tract has an altitude of many hundred feet, and extends to the breakers of the Pacific. Deer is the staple game, and the incidents of the hunt are full of variety. Land-locked salmon, striped bass and trout afford earnest sport in their season, and it would be hard to find a day in the year, for that matter, when game of some kind cannot be bagged.

The Mira Monte Club, organized in 1895, is composed of ten members, and beautifully located on a small oak-covered island, a half mile from the main shore in the Petaluma Marsh opposite Burdell Station, Marin County, and on the left bank of the Petaluma Creek. The preserve includes a lease of 20,000 acres of inland country, and 5,000 acres of marsh land surrounding the clubhouse, which is of the Spanish style of architecture, one story in height and flanked with deep wings. The inland country is well covered with scrub oak, fern, wild rose and other brush, and is the home of thousands of quail, dove and deer, which give sport to the members during the open summer months, while the marsh is the attraction in winter, where sprig, widgeon and canvasback come in large numbers. The ponds of the Mira Monte Marsh territory are located within a mile and a half of the house, and are easily approached by steam launches and small sculling boats owned by the members, and the hard land marsh, covered with a short salt marsh grass, makes retrieving easy and leaves but few cripples.

The Suisun Marsh is called the duck hunter's paradise of the Pacific Coast, and is a vast territory bristling with tule and seamed with ditches and sloughs. Mt. Diablo pierces the western sky with two blue peaks and slants yellow hills to the Suisun's green edge, and here, within a radius of thirty miles, six clubs have leased soft land and hard land ponds, and for the accommodation of their members, built arks or houses, which are admirably appointed and, excepting in size of the rooms, quite as comfortable as the quarters afforded by the city's club men. During the season, these floating clubhouses are well filled, and before daybreak every morning, duck hunters by the score wend their way by launch and boat to lie in wait for game for the day's sport.

One of the oldest and most popular is the Teal Shooting Club, which was founded in 1882 by eight prominent citizens of San Francisco. Its quarters comprise a number of arks that until a few years ago rested on the water, but have been transferred to the mainland, and are now practically built on the right of the railway. The dining-room, sleeping and kitchen arks have been raised from the ground on supports, making them dry and well ventilated, and giving a fine view of the attractive tidewater land, enclosed by a heavy growth of tule, extending over an area of about 120 square miles. The club's particular territory is about 3,000 acres, and has in all six shooting ponds, all within easy access, which correspond in size to half a city square, and average from one to five feet in depth. The main sloughs wind in and out like rivers through the tule-covered marsh, and from these streams, ditches are dug to the ponds. At the sloughs, the hunter is transferred from the launch or rowboat, with decoys and guns, into the pond boat, which is sculled out over the ditch, through the pond to his blind, which is either floating or located on the favorite points.

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The biggest record at teal is 240 birds in one day for one gun; and there are many running from 120 to 170 made between sunrise and sunset, the period called shooting time according to the laws of the club.* The arks of the club comprise quite a little village in the midst of the marsh, and from an artistic standpoint cannot be surpassed.

The Field and Tule Club is picturesquely set in the northern part of the Suisun Marsh, about three-quarters of a mile from Cordelia, and nearly fifty miles from San Francisco. The house is well equipped, and when the water is low may be approached by the road; at other times, the members employ small boats. While a new organization, comparatively, having been in existence but a year or so, its hospitality is conspicuous, and its jinks occasions to be remembered and sometimes written about.

THE PICTURESQUELY LOCATED HOUSE OF THE FIELD AND TULE CLUB.

San Francisco business men comprise the club's members with Mr. A. M. Shield, President, and their ten-year lease covers 750 acres of the great marsh. Revelry by night and ducks by day supply no end of sport during the season, and while this club has but one "Josh" shoot in its history, that one was not lacking in novelty. Two teams were made up to hunt against each other, with John B. Coleman and Fred Bushnell, captains. A list of points was prepared as follows: Teal, sprig, widgeon, canvasbacks, mallards, English snipe, spoonbills, geese and coots, 1; bitterns, 2; larks, owls, and M. E. Unger, 5; hawks, shags, diver and terrapin, 10; shelldrakes and Derby, 15; snakes, rats, mudhens and Harry Miller, 25; coons (any old color) and frogs, 50; swans, pelicans and minks, 100; Fred Bushnell, 150. On the next day a morning newspaper contained the following:

"That hunt when Sunday broke into the time schedule was one of the hardest stunts ever performed by members of the club.

*The strife of California duck shooters for record bags is thoroughly unsportsmanly, and to be unequivocally condemned. It is the pot-hunter's instinct, and is entirely responsible for the slaughter which has so lessened the duck supply on the Pacific coast.—EDITOR.

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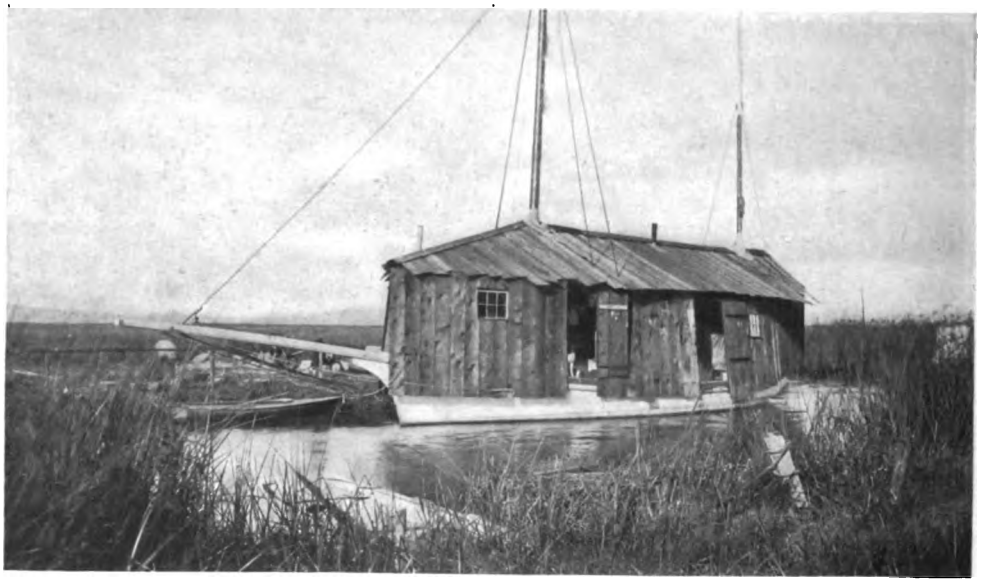
There were only mudhens and some snakes and frogs left, and they were all filled with fright. The mudhens flew as high as geese and the frogs could leap across a lagoon. There was scarcely a let-up in the fusillade of firearms and no corner was left unsearched for something to shoot. Small shot kept flying close to Derby, Unger and Bushnell. Finally when Bushnell's hat had been shot off and his pocket flask had been broken by a charge of No. 9, he said he had Coleman skinned to death and called his men off. The fight began when the score was made, upon Bushnell's side, with seventy mudhen heads, and they were ruled out with the statement that the whole bird should have been brought in. Some alleged frogs he had were declared to be toads. One of Coleman's snakes was thrown out on the ground that it had been dead too long. So Bushnell, the captain of the losing team, had to settle for the dinner."



THE CORDELIA CLUB "ARK" HOUSED FOR THE WINTER.

The Tule Shooting Club, organized forty years ago, is distinguished from the others in owning about half of its 3,000 acres of shooting ground. Formerly it occupied an ark which floated in the Tule regions near Stockton, but eighteen years ago headquarters were established at the Drawbridge on the Suisun Marshes and the ark abandoned for a cottage well adapted for comfort and setting back from the railroad about 200 feet. Charles Josselyn is President, and among its seven members are J. Downey Harvey, Hermann Oelrichs, Baron Von Shroeder, Fred Sharon, Alexander Hamilton and Fred Webster. These zealous sportsmen have spent $25,000 in making ponds, cutting canals to connect them and in planting feed for the ducks.

In 1881, the Cordelia Shooting Club of six leased 4,800 acres on the east side of the marsh, with fifteen ponds, of one and one-half acres in extent, and elected Mr. C. W. Kellogg as President.

The original ark has since been enlarged and transferred upon supports to dry land with the front door opening on to a floating stoop, so that its quarters present a typical marsh home which its members appreciate together with the good living and genial warmth for which the club is noted.

Like nearly all of the clubs within the boundaries of the duck hunters' rendezvous, the five members of the Ibis Shooting Club, founded in 1882, inhabit arks. Indeed, ark living seems to be the popular choice Suisun way. If a view of the mountains is desired, right about face, and there you are. If the members wish to be nearer the sea, it is an easy matter to hitch a tow line to the convenient steam launch and, presto, latitude can be changed for the wishing.

The tract of land leased by this club was originally the old "Chamberlain Tract," of 3,000 acres, and, in truth, the whole marsh was at one time held by the market

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hunters. It was at this time that Jim Payne and Seth Beckwith earned the sobriquet of "Fathers of the Suisun," by leasing the ground from the market hunters and subleasing it to the various clubs. The natural feed on the Suisun is wild celery, which is thick in the ponds early in the season, but is soon devoured by the sprig, mallard, widgeon and teal ducks, while canvasback, black-jack and ruddy ducks soon finish the celery bulbs; then wheat and barley are scattered for a tempting bait. The waters of the marsh change biennially from fresh to salt water. From July to the winter rains, the mountain streams will be dry and the June tides, being the largest of the year, back their way into the Suisun.

Charles P. Eells is President of the Ibis Club and has so far held the record for the best morning's work, 165 widgeon and sprig to one gun.

The Burlingame Country Club, organized in 1893, is one of the most picturesque and well-equipped social-sporting establishments in the world. The house is a quaint mixture of Dutch and Spanish architectural design and sets in the midst of a sixteen-acre tract about ten minutes' drive from the railroad station, over a road bordered on both sides by tall eucalyptus trees. There are stables of polo ponies, race ponies and thoroughbred hunters, kennels with three packs of hounds, and pigeon traps.

Added to the sports in which the horse figures are golf, tennis and squash. Polo is perhaps the game which Burlingame plays best, and among its skilful members are: F. J. Carolan, J. L. Tobin, R. M. Tobin, W. L. Hobart, P. D. Martin, L. M. McCreery, C. Dunphy, J. Lawson, F. J. Mackie, F. C. Menzies, T. A. Driscoll, E. W. Howard, C. Raoul Duval, R. McCreery and E. J. Tobin. But the sport most enjoyed by "the pick and flower of our flying horsemen" is riding to hounds. There is a meet three times a week, the fields are from thirty-five to fifty, and Mr. Francis J. Carolan, one of the plucky riders in the San Mateo Hunt, whose energy and enthusiasm have done much for the success of the club, is the Master. There are, too, women in the club who can live with the hounds, notably Miss Therese Morgan, Mrs. Walter Martin and Mrs. Walter Hobart.

THE BURLINGAME CLUB HOUSE.

Where in civilization can you beat San Francisco? Where else can you play polo and race horses the year around? or within an hour's ride of the city by the West Sea stalk deer, flush quail, basket fish or bag wild duck?

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THE HAUNTER OF THE PINE GLOOM

By Charles G. D. Roberts

FOR a moment the Boy felt afraid—afraid in his own woods. He felt that he was being followed, that there were hostile eyes burning into the back of his jacket. The sensation was novel to him, as well as unpleasant, and he resented it. He knew it was all nonsense. There was nothing in these woods bigger than a weasel, he was sure of that. Angry at himself he would not look round, but swung along carelessly through the thicket, being in haste because it was already late and the cows should have been home and milked before sundown. Suddenly, however, he remembered that it was going flat against all woodcraft to disregard a warning. And was he not, indeed, deliberately seeking to cultivate and sharpen his instincts, in the effort to get closer to the wild woods folk and know them in their furtive lives? Moreover, he was certainly getting more and more afraid! He stopped, and peered into the pine glooms which surrounded him.

Standing motionless as a stump, and breathing with perfect soundlessness, he strained his ears to help his eyes in their questioning of this obscure menace. He could see nothing. He could hear nothing. Yet he knew his eyes and ears were cunning to pierce all the wilderness disguises. But stay—was that a deeper shadow, merely, far among the pine trunks? And—did it move? He stole forward; but [illegible] as he did so, whatever of unusual he [illegible] fancied in the object upon which his [illegible]e fixed melted away. It became but [illegible] among other shadows, and motionless as they—all motionless in the calm of the tranquil sunset. He ran forward now, impatient to satisfy himself beyond suspicion. Yes—of course—it was just this gray spruce stump! He turned away, a little puzzled and annoyed in spite of himself. Thrashing noisily hither and thither through the underbrush—quite contrary to his wonted quietude while in the domains of the woodfolk,—and calling loudly in his clear young voice, "Co-petty! Co-petty! Co-petty! Co-o-o-petty!" over and over, he at length found the wilful young cow which had been eluding him. Then he drove the herd slowly homeward, with mellow *tink-a-tonk*, *tank-tonk* of the cowbells, to the farmyard and the milking.

Several evenings later, when his search for the wilful young cow chanced to lead him again through the corner of this second growth pine wood, the Boy had a repetition of the disturbing experience. This time his response was instant and aggressive. As soon as he felt that sensation of unfriendly eyes pursuing him, he turned, swept the shadows with his piercing scrutiny, plunged into the thickets with a rush, then stopped short as if frozen, almost holding his breath in the tensity of his stillness. By this procedure he hoped to catch the unknown haunter of the glooms under the disadvantage of motion. But again he was baffled. Neither eye nor ear revealed him anything. He went home troubled and wondering.

Some evenings afterwards the same thing happened at another corner of the pasture; and again one morning when he was fishing

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in the brook a mile back into the woods, where it ran through a tangled growth of birch and fir. He began to feel that he was either the object of a malicious scrutiny, or that he was going back to those baby days when he used to be afraid of the dark. Being just at the age of ripe boyhood when childishness in himself would seem least endurable, the latter supposition was not to be considered. He therefore set himself to investigate the mystery, and to pit his woodcraft against the evasiveness of this troubler of his peace.

The Boy's confidence in his woodcraft was well founded. His natural aptitude for the study of the wild kindred had been cultivated to the utmost of his opportunity, in all the time that could be stolen from his lesson-hours and from his unexacting duties about his father's place. Impatient and boyish in other matters, he had trained himself to the patience of an Indian in regard to all matters appertaining to the woodfolk. He had a pet theory that the human animal was more competent, as a mere animal, then it gets the credit of being; and it was his particular pride to outdo the wild creatures at their own games. He could hide, unstirring as a hidden grouse. He could run down a deer by sheer endurance—only to spare it at the last and let it go, observed and mastered, but unhurt. And he could see, as few indeed among the wild things could. This was his peculiar triumph. His eyes could discriminate where theirs could not. Perfect movelessness was apt to deceive the keenest of them; but his sight was not to be so foiled. He could differentiate, gradually, the shape of the brown hare crouching motionless on its brown form; and separate the yellow weasel from the tuft of yellow weeds; and distinguish the slumbering nighthawk from the knot on the hemlock limb. He could hear, too, as well as most of the wild kindred, and better, indeed, than some; but in this he had to acknowledge himself hopelessly outclassed by not a few. He knew that the wood-mouse and the hare, for instance, would simply make a mock of him in any test of ears; and as for the owl—well, that gifted hearer of infinitesimal sounds would be justified in calling him stone-deaf.

The Boy was a good shot, but very seldom was it that he cared to display his skill in that direction. It was his ambition to "name all the birds without a gun." He would know the wild folk living, not dead. From the feebler of the wild folk he wanted trust, not fear; and he himself had no fear, on the other hand, of the undisputed Master of the Woods, the big black bear. His faith, justified by experience, was that the bear had sense, knew how to mind his own business, and was ready to let other people mind theirs. He knew the bear well, from patient, secret observation when the big beast little imagined himself observed. From the neighborhood of a bull moose in rutting season he would have taken pains to absent himself; and if he had ever come across any trace of a panther in those regions, he would have studied that uncertain beast with his rifle always at hand in case of need. For the rest, he felt safe in the woods, as an initiate of their secrets, and it was unusual for him to carry in his wanderings any weapon but a stout stick and the sheath-knife in his belt.

Now, however, when he set himself to discover what it was that haunted his footsteps in the gloom, he took his little rifle—and in this act betrayed to himself more uneasiness than he had been willing to acknowledge.

This especial afternoon he got the hired man to look after the cows for him, and betook himself early, about two hours before sundown, to the young pine wood where the mystery had begun. In the heart of a little thicket, where he was partly concealed and where the gray-brown of his clothes blended with the stems and dead branches, he seated himself comfortably with his back against a stump. Experience had taught him that, in order to hold himself long in one position, the position chosen must be an easy one. Soon his muscles relaxed, and all his senses rested, watchful but unstrained. He had learned that tensity was a thing to be held in reserve until occasion should call for it.

In a little while his presence was ignored or forgotten by the chipmunks, the chickadees, the white-throats, and other unafraid creatures. Once a chipmunk, on weighty business bent, ran over his legs rather than go around so unoffending an obstacle. The chickadees played antics on the branches, and the air was beaded sweetly everywhere with their familiar *sic-a-dee, dee-ee*. A white-throat in the tree right over his head whistled his mellow *dear, dear eedledee—eedledee—eedledee*, over and over. But there was nothing new in all this: and at length he began to grow conscious of his

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position, and desirous of changing it slightly.

Before he had quite made up his mind to this momentous step there came upon his ear a beating of wings, and a fine cock grouse alighted on a log some forty paces distant. He stretched himself, strutted, spread his ruff and wings and tail, and was about to begin drumming. But before the first sonorous note rolled out there was a rustle and a pounce. The beautiful bird bounded into the air as if hurled from a spring; and a great lynx landed on the log, digging his claws fiercely into the spot where the grouse had stood. As the bird rocketed off through the trees the lynx glared after him, and emitted a loud, screeching snarl of rage. His disappointment was so obvious and childish that the Boy almost laughed out.

"Lucifee," said he to himself, giving it the name it went by in all the back settlements. "That's the fellow that has been haunting me. I didn't think there were any lynxes this side of the mountain. He hasn't seen me, that's sure. So now it's my turn to haunt him a bit."

The lucifee, indeed, had for the moment thrown off all concealment, in his fury at the grouse's escape. His stub of a tail twitched and his pale bright eyes looked around for something on which to vent his feelings. Suddenly, however, a wandering puff of air blew the scent of the Boy to his nostrils. On the instant, like the soundless melting of a shadow, he was down behind the log, taking observations through the veil of a leafy branch.

Though the animal was looking straight toward him, the Boy felt sure he was not seen. The eyes, indeed, were but following the nose. The lynx's nose is not so keen and accurate in its information as are the noses of most of the other wild folk, and the animal was puzzled. The scent was very familiar to him, for had he not been investigating the owner of it for over a week, following him at every opportunity with mingled curiosity and hatred. Now, judging by the scent, the object of his curiosity was close at hand—yet incomprehensibly invisible. After sniffing and peering for some minutes he came out from behind the log and crept forward, moving like a shadow, and following up the scent. From bush to tree-trunk, from thicket to stump, he glided with incredible smoothness and rapidity, elusive to the eye, utterly inaudible; and behind each shelter he crouched to again take observations. The Boy thought of him, now, as a sort of malevolent ghost in fur, and no longer wondered that he had failed to catch a glimpse of him before.

The lynx (this was the first of its tribe the Boy had ever seen, but he knew the kind by reputation) was a somewhat doggish-looking cat, perhaps four or five times the weight of an ordinary Tom, and with a very uncatlike length of leg in proportion to its length of body. Its hindquarters were disproportionately high, its tail ridiculously short. Spiky tufts to its ears and a peculiar brushing back of the fur beneath its chin gave its round and fierce-eyed countenance an expression at once savage and grotesque. Most grotesque of all were the huge, noiseless pads of its feet, muffled in fur. Its color was a tawny, weather-beaten gray-brown. Its eyes pale, round, brilliant, and coldly cruel.

At length the animal, on a stronger puff of air, located the scent more closely. This was obvious from a sudden stiffening of his muscles. His eyes began to discern a peculiarity in the pine trunk some twenty paces ahead. Surely that was no ordinary pine-trunk, that! No, indeed, that was where the scent of the Boy came from—and the hair on his back bristled fiercely. In fact, it *was* the Boy! The lucifee's first impulse on the discovery, was to shrink off like a mist, and leave further investigation to a more favorable opportunity. But he thought better of it because the Boy was so still. Could he be asleep? Or, perhaps, dead? At any rate, it would seem, he was for the moment harmless. Curiosity overcoming discretion, and possibly hatred suggesting a chance of advantageous attack, the animal lay down, his paws folded under him, contemplatively, and studied with round fierce eyes the passive figure beneath the tree.

The Boy, meanwhile, returned the stare with like interest, but through narrowed lids, lest his eyes should betray him; and his heart beat fast with the excitement of the situation. There was a most thrilling uncertainty, indeed, as to what the animal would do next. He was glad he had brought his rifle.

Presently the lucifee arose and began creeping stealthily closer, at the same time swerving off to the right as if to get behind

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the tree. Whether his purpose in this was to escape unseen or to attack from the rear, the Boy could not decide: but what he did decide was that the game was becoming hazardous and should be brought to immediate close. He did not want to be compelled to shoot the beast in self-defence, for, this being the first lynx he had ever seen, he wanted to study him. So, suddenly, with the least possible movement of his features, he squeaked like a wood-mouse, then *quit-quit*-ed like a grouse, then gave to a nicety the sonorous call of the great horned owl.

The astonished lynx seemed to shrink into himself, as he flattened against the ground, grown moveless as a stone. It was incredible, appalling indeed, that these familiar and well-understood voices should all come from that same impassive figure. He crouched unstirring for so long that at last the shadows began to deepen perceptibly. The Boy remembered that he had heard, some time ago, the bells of the returning cows; and he realized that it might not be well to give his adversary the advantage of the dark. Nevertheless, the experience was one of absorbing interest and he hated to close it.

At length the lucifee came to the conclusion that the mystery should be probed more fully. Once more he rose upon his padded, soundless paws, and edged around stealthily to get behind the tree. This was not to be permitted. The Boy burst into a peal of laughter and slowly rose to his feet. On the instant the lucifee gave a bound, like a great rubber ball, backward into a thicket. It seemed as if his big feet were all feathers, and as if every tree trunk bent to intervene and screen his going. The Boy rubbed his eyes, bewildered at so complete and instantaneous an exit. Grasping his rifle in readiness he hurried forward, searching every thicket, looking behind every stump and trunk. The haunter of the glooms had disappeared.

After this, however, the Boy was no more troubled by the mysterious pursuit. The lynx had evidently found out all he required to know about him. On the other hand the Boy was balked in his purpose of finding out all he wanted to know about the lynx. That wary animal eluded all his most patient and ingenious lyings-in-wait, until the Boy began to feel that his woodcraft was being turned to a derision.

Only once more that autumn did he catch a glimpse of his shy opponent, and then by chance, when he was on another trail. Hidden at the top of a thick-wooded bank he was watching a mink at its fishing in the brook below. But as it turned out, the dark little fisherman had another watcher as well. The pool in the brook was full of large suckers. The mink had just brought one to land in his triangular jaws and was proceeding to devour it, when a silent gray thunderbolt fell upon him. There was a squeak and a snarl; and the long, snaky body of the mink lay as still as that of the fish which had been its prey. Crouching over his double booty, a paw on each, the lynx glared about him in exultant pride. The scent of the Boy, high on the bank above, did not come to him. The fish, as the more highly prized tid-bit, he devoured at once. Then, after licking his lips and polishing his whiskers, he went loping off through the woods with the limp body of the mink hanging from his jaws, to eat it at leisure in his lair. The Boy made up his mind to find out where that lair was hidden. But his searchings were all vain, and he tried to console himself with the theory that the animal was wont to travel great distances in his hunting—a theory which he knew in his heart to be contrary to the customs of the cat-kindred.

During the winter he was continually tantalized by coming across the lucifee's tracks —great footprints, big enough to do for the trail-signature of the panther himself. If he followed these tracks far he was sure to find interesting records of wilderness adventure—here a spot where the lynx had sprung upon a grouse, and missed it, or upon a hare, and caught it; and once he found the place where the big furry paws had dug down to the secret white retreat where a grouse lay sleeping under the snow. But by and by the tracks would cross each other, and make wide circles, or end in a tree where there was no lucifee to be found. And the Boy was too busy at home to give the time which he saw it would require to unravel the maze to its end. But he refused to consider himself defeated. He merely regarded his triumph as postponed.

Early in the spring the triumph came—though not just the triumph he had expected. Before the snow was quite gone, and when the sap was begining to flow from the sugar maples, he went with the hired man

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to tap a grove of extra fine trees some five miles east from the settlement. Among the trees they had a sugar camp; and when not at the sugar-making, the Boy explored a near by burnt-land ridge, very rocky and rich in coverts, where he had often thought the old lynx, his adversary, might have made his lair. Here, the second day after his arrival, he came upon a lucifee track. But it was not the track with which he was familiar. It was smaller, and the print of the right forefoot lacked a toe.

The Boy grinned happily and rubbed his mittened hands. "Aha!" said he to himself, "better and better! There is a Mrs. Lucifee. Now we'll see where she hides her kittens."

The trail was an easy one this time, for no enemies had been looked for in that desert neighborhood. He followed it for about half a mile, and then caught sight of a hollow under an overhanging rock, to which the tracks seemed to lead. Working around to get the wind in his face he stole cautiously nearer, till he saw that the hollow was indeed the entrance to a cave, and that the tracks led directly into it. He had no desire to investigate further, with the risk of finding the lucifee at home; and it was getting too late for him to undertake his usual watching tactics. He withdrew stealthily and returned to the camp in exultation.

In the night a thaw set in, so the Boy was spared the necessity of waiting for the noon sun to soften the snow and make the walking noiseless. He set out on the very edge of sunrise, and reached his hiding place while the mouth of the cave was still in shadow. On the usual crisp mornings of sugar season the snow at such an hour would have borne a crust, to crackle sharply under every footstep and proclaim an intruding presence to all the wood folk for a quarter of a mile about.

After waiting for a good half hour, his eyes glued to a small black opening under the rock, his heart gave a leap of strong, joyous excitement. He saw the lucifee's head appear in the doorway. She peered about her cautiously, little dreaming, however, that there was any cause for caution. Then she came forth into the blue morning light, yawned hugely, and stretched herself like a cat. She was smaller than the Boy's old adversary, somewhat browner in hue, leaner, and of a peculiarly malignant expression. The Boy had an instant intuition that she would be the more dangerous antagonist of the two; and a feeling of sharp hostility toward her, such as he had never felt toward her mate, arose in his heart.

When she had stretched to her satisfaction, and washed her face perfunctorily with two or three sweeps of her big paw, she went back into the cave. In two or three minutes she reappeared, and this time with a brisk air of purpose. She turned to the right, along a well-worn trail, ran up a tree to take a survey of the country, descended hastily, and glided away among the thickets.

"It's breakfast she's after," said the Boy to himself, "and she'll take some time to find it."

When she had been some ten minutes gone, the Boy went boldly down to the cave. He had no fear of encountering the male, because he knew from an old hunter who had taught him his first wood-lore that the male lucifee is not popular with his mate at whelping time, having a truly Saturnian fashion of devouring his own offspring. But there was the possibility, remote, indeed, but disquieting, of the mother turning back to see to some neglected duty; and with this chance in view he held his rifle ready.

Inside the cave he stood still and waited for his eyes to get used to the gloom. Then he discovered, in one corner, on a nest of fur and dry grass, a litter of five lucifee whelps. They were evidently very young, little larger than ordinary kittens, and too young to know fear, but their eyes were wide open, and they stood up on strong legs when he touched them softly with his palm. Disappointed in their expectation of being nursed, they mewed, and there was something in their cries that sounded strangely wild and fierce. To the Boy's great surprise they were quite different in color from their gray-brown, unmarked parents, being striped vividly and profusely, like a tabby or a tiger. The Boy was delighted with them, and made up his mind that when they were a few days older he would take two of them home with him to be brought up in the ways of civilization.

Three days later he again visited the den, this time with a basket in which to carry away his prizes. After waiting an hour to see if the mother were anywhere about he grew impatient. Stealing as close to the cave's mouth as the covert would permit, he squeaked like a wood-

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mouse, several times. This seductive sound bringing no response, he concluded that the old lucifee must be absent. He went up to the mouth of the cave and peered in, holding his rifle in front of his face in readiness for an instant shot. When his eyes got command of the dusk he saw to his surprise that the den was empty. He entered and felt the vacant nest. It was quite cold, and had a deserted air. Then he realized what had happened, and cursed his clumsiness. The old lucifee, when she came back to her den, had learned by means of her nose that her enemy had discovered her hiding-place and touched her young with his defiling human hands, thereupon in wrath she had carried them away to some remote and unviolated lair. Till they were grown to nearly the full stature of lucifee destructiveness, the Boy saw no more of his wonderful lucifee kittens.

Toward the latter part of the summer, however, he began to think that perhaps he had made a mistake in leaving these fierce beasts multiply. He no longer succeeded in catching sight of them as they went about their furtive business, for they had somehow become aware of his woodcraft and distrustful of their own shifts. But on all sides he found trace of their depredations among the weaker creatures. He observed that the rabbits were growing scarce about the settlement; and even the grouse were less numerous in the upland thickets of young birch. As all the harmless wood folk were his friends he began to feel that he had been false to them in sparing their enemies. Thereupon, he took to carrying his rifle whenever he went exploring. He had not really declared war upon the haunters of the glooms, but his relations with them were becoming distinctly strained.

At length the rupture came; and it was violent. In one of the upland pastures, far back from the settlement, he came upon the torn carcass of a half-grown lamb. He knew that this was no work of a bear, for the berries were abundant that autumn, and the bear prefers berries to mutton. Moreover, when a bear kills a sheep he skins it deftly and has the politeness to leave the pelt rolled up in a neat bundle, just to indicate to the farmer that he has been robbed by a gentleman. But this carcass was torn and mangled most untidily; and the Boy divined the culprits.

It was early in the afternoon when he made his find, and he concluded that the lucifees were likely to return to their prey before evening. He hid himself, therefore, behind a log thickly fringed with juniper, not twenty-five paces from the carcass; and waited, rifle in hand.

A little before sunset appeared the five young lucifers, now nearly full grown. They fell at once to tearing at the carcass, with much jealous snarling and fighting. Soon afterwards came the mother, with a well-fed, leisurely air; and at her heels, the big male of the Boy's first acquaintance. It was evident that, now that the rabbits were getting scarce, the lucifees were hunting in packs, a custom very unusual with these unsocial beasts under ordinary circumstances, and only adopted when seeking big game. The big male cuffed the cubs aside without ceremony, mounted the carcass with an air of lordship, glared about him, and suddenly, with a snarl of wrath, fixed his eyes upon the green branches wherein the Boy lay concealed. At the same time the female, who had stopped short, sniffing and peering suspiciously, crouched to her belly, and began to crawl very softly and stealthily, as a cat crawls upon an unsuspecting bird, toward the innocent-looking juniper thicket.

The Boy realized that he had presumed too far upon the efficacy of stillness and that the lynxes, at this close range, had detected him. He realized, too, that now, jealous in the possession of their prey, they had somehow laid aside their wonted fear of him; and he congratulated himself heartily that his little rifle was a repeater. Softly he raised it to take aim at the nearest, and to him the most dangerous of his foes, the cruel-eyed female; but in doing so he stirred, ever so little, the veiling fringe of juniper. At the motion the big male sprang forward, with two great bounds, and crouched within ten yards of the log. His stub of a tail twitched savagely. He was plainly nerving himself to the attack.

There was no time to lose. Taking quick but careful aim the Boy fired. The bullet found its mark between the brute's eyes and he straightened out where he lay, without a kick. At the sound and the flash the female doubled upon herself as quick as light; and before the Boy could get a shot at her she was behind a stump some rods away, shrinking small, and fleeing like a gray shred

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of vapor. The whelps, too, had vanished with almost equal skill—all but one. He, less alert and intelligent than his fellows, tried concealment behind a clump of pink fireweed. But the Boy's eyes pierced the screen; and the next bullet, cutting the fireweed stalks, took vengeance for many slaughtered hares and grouse.

After this the Boy saw no more of his enemies for some months, but though they had grown still more wary their experience had not made them less audacious. Before the snow fell they had killed another sheep; and the Boy was sure that they, rather than any skunks or foxes, were to blame for the disappearance of several geese from his flock. His primeval hunting instincts were now aroused, and he was no longer merely the tender-hearted and sympathetic observer. It was only toward the marauding lucifees, however, that his feelings had changed. The rest of the wild folk he loved as well as before, but for the time he was too busy to think of them.

When the snow came, and footsteps left their tell-tale records, the Boy found to his surprise that he had but one lucifee to deal with. Every lynx track in the neighborhood had a toe missing on the right forefoot. It was clear that the whelps of last spring had shirked the contest and betaken themselves to other and safer hunting-grounds; but he felt that between himself and the vindictive old female it was war to the knife. Her tracks fairly quartered the outlying fields all about his father's farm, and were even to be found now and again around the sheep-pen and the fowl-house. Yet never, devise he ever so cunningly, did he get a glimpse of so much as her gray stub tail.

At last, through an open window, she invaded the sheep-pen by night and killed two young ewes. To the Boy this seemed mere wantonness of cruelty, and he set his mind to a vengeance which he had hitherto been unwilling to consider. He resolved to trap his enemy, since he could not shoot her.

Now as a mere matter of woodcraft, he knew all about trapping and snaring; but ever since the day, now five years gone, when he had been heart-stricken by his first success in rabbit-snaring, he had hated everything like a snare or trap. Now, however, in the interests of all the helpless creatures of the neighborhood, wild or tame, he made up his mind to snare the lucifee. He went about it with his utmost skill, in a fashion taught him by an old Indian trapper.

Close beside one of his foe's remoter runways, in an upland field where the hares were still abundant, the Boy set his snare. It was just a greatly exaggerated rabbit snare, of extra heavy wire and a cord of triple strength. But instead of being attached to the top of a bent-down sapling, it was fastened to a billet of wood about four feet long and nearly two inches in diameter. This substantial stick was supported on two forked uprights driven into the snow beside the runway. Then young fir-bushes were stuck about it carefully in a way to conceal evidence of his handiwork; and an artful arrangement of twigs disguised the ambushed loop of wire.

Just behind the loop of wire, and some inches below it, the Boy arranged his bait. This consisted of the head and skin of a hare, stuffed carefully with straw, and posed in a life-like attitude. It seemed, indeed, to be comfortably sleeping on the snow, under the branches of a young fir-tree; and the Boy felt confident that the tempting sight would prevent the wily old lucifee from taking any thought to the surroundings before securing the prize.

Late that afternoon, when rose and gold were in the sky, and the snowy open spaces were of a fainter rose, and the shadows took on an ashy purple under the edges of the pines and firs, the old lucifee came drifting along like a phantom. She peered hungrily under every bush, hoping to catch some careless hare asleep. On a sudden a greenish fire flamed into her wide eyes. She crouched, and moved even more stealthily than was her wont. The snow, the trees, the still sweet evening light, seemed to invest her with silence. Very soundly it slept, that doomed hare, crouching under the fir-bush! And now, she was within reach of her spring. She shot forward, straight and strong and true.

Her great paws covered the prey, indeed; but at the same instant a sharp, firm grip clutched her throat with a jerk, and then something hit her a sharp rap over the shoulders. With a wild leap backward and aside she sought to evade the mysterious attack. But the noose settled firmly behind her ears, and the billet of wood, with a nasty tug at her throat, leapt after her.

So this paltry thing was her assailant! She flew into a wild rage at the stick, tearing

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at it with her teeth and claws. But this made no difference with the grip about her throat so she backed off again. The stick followed —and the grip tightened. Bracing her forepaws upon the wood she pulled fiercely to free herself; and the wire drew taut till her throat was almost closed. Her rage had hastened her doom, fixing the noose where there was no such thing as clawing it off. Then fear took the place of rage in her savage heart. Her lungs seemed bursting. She began to realize that it was not the stick, but some more potent enemy whom she must circumvent or overcome. She picked up the billet between her jaws, climbed a big birch tree which grew close by, ran out upon a limb some twenty feet from the ground, and dropped the stick, thinking thus to rid herself of the throttling burden.

The shock, as the billet reached the end of its drop, jerked her from her perch; but clutching frantically she gained a foothold on another limb eight or ten feet lower down. There she clung, her tongue out, her eyes filming, her breath stopped, strange colors of flame and darkness rioting in her brain. Bracing herself with all her remaining strength against the pull of the dangling stick, she got one paw firmly fixed against a small jutting branch. Thus it happened that when, a minute later, her life went out and she fell, she fell on the other side of the limb. The billet of wood flew up, caught in a fork, and held fast; and the limp, tawny body, twitching for a minute convulsively, hung some six or seven feet above its own tracks in the snow.

An hour or two later the moon rose, silvering the open spaces. Then, one by one and two by two, the hares came leaping down the aisles of pine and fir. Hither and thither around the great birch tree they played, every now and then stopping to sit up and thump challenges to their rivals. And because it was quite still, they never saw the body of their deadliest foe, hanging stark from the branch above them.

"PAPABOTTE" SHOOTING IN LOUISIANA

HOW THE CREOLES KILL AND COOK THE FINEST PLOVER IN AMERICA

By Andrew Wilkinson

THERE is an American plover too susceptible to cold weather to endure even the mild winter climate of south Louisiana, though it nests in our northern border States.

That bird bears three names. When it reaches the cattle pastures and prairies of southwest Louisiana about the middle of March, it is called the Mexican plover, from its wintering place in Mexico. It tarries a month or two in the Gulf Coast parishes to rest and recuperate after the first half of its long northward flight. During this spring journey and stay, true sportsmen do not trouble the Mexican plovers; the birds are lean from the weariness of long migration and so tame that the veriest tyro is able to shoot them on the ground at short gun-range. After feeding awhile on the revivified insect-life of the south Louisiana and Texas prairies, the plovers commence pairing off about the middle of April and leaving in small detachments; and, before the middle of May, the last of them have departed from their half-way feeding grounds to follow the far northward advance of spring.

In their breeding region, they go by the general name of upland plover, with variations of title according to local provincialism.

In August the comparatively cool nights of their summer range warn their oversensitive bodies that it is time to depart for the milder climes and more abundant bird-pastures of the distant South. In the latter half of August, they appear again in south Louisiana. Having evidently stopped daily for meals in their southward migration, they reach the Gulf Coast region plump birds,

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at least fifty per cent. bigger than they were when they departed in the spring.

After sojourning a few days on the half-cropped prairies, they become so corpulent as to be almost equal in weight to a fat green-winged teal. They gorge themselves on the countless myriads of Mexican flies that swarm close to the ground in the short grassy tussocks of the prairie pastures. That pungent and juicy diet is said to give their flesh such characteristics as those possessed by the edible bird-nests and the *biche-de-mer* so eagerly sought by the opulent mandarins of China. Without considering such claims, it can be truthfully said that in such condition they have a richness and delicacy of flavor unrivaled by any other game bird in America. If it were possible to take the woodcock, the snipe and the ortolan at their best, and make one composite *bonne-bouche* of a bird, the royal "papabotte" of Louisiana, as this bird is locally known, would still remain supreme on the table.

As the plovers grow fatter, they become more jovial, and give voice to their jollity, so that everywhere over their feeding grounds may be heard their flute-like triple note which the native Creole hunters construe into "pap-a-botte" and thus give the bird its commonly accepted Louisiana name.

Wisdom seems to warn these birds that the fatter they grow, the greater is their danger from powder and shot; and, though in their extreme corpulence they are lazy enough when unmolested, they are then quickest to take wing at the approach of a walking hunter, and rise far beyond gun-range. But, with all their cunning, the birds are in some respects fools of fools. A man seated in an uncovered wagon may almost drive over them on their level prairie feeding-grounds before they will move, running a little distance out of his way or lazily taking wing.

How these birds are shot and cooked in the Creole country may be described in the late hunting experience of a sportsman named herein Mr. Johns, for shortness and general convenience. The scene of this diversion was one of the Calcasieu prairies of southwest Louisiana, and the time an early morning in mid-September. The first "Texas norther" of the season had come the previous night to pull the thermometer down from the eighties of the day before to the sixties that morning. Mr. Johns jumped into a rough-looking two-wheeled hunting wagon on the wide seat beside his Creole friend and guide, Attakapas Jaques. The driver's Creole cow-pony was harnessed in the shafts and his shaggy nondescript retriever lay curled up behind the seat in the rude box which formed the body of that vehicle. Under the seat had been stowed away a hundred shells, loaded with some prime brand of smokeless powder and No. 8 shot.

"*Eh, bien,*" exclaimed Jaques, as Mr. Johns made himself comfortable and laid his favorite little hammerless muzzle outward across his lap, "I goin' tek you to dat praree *vacherie*. I been see plentee doze papabotte dere yisterday, me;" then he gave his little beast a brisk slap with the rawhide reins and a smart touch of the quirt, which inspired the sleepy-looking animal to set forth for the hunting grounds with the most unexpected speed.

They soon struck the "Cowpen Prairie," an expanse of many square miles, covered with short herbage, dotted with innumerable tufts of coarser grass, and traced here and there by water-filled depressions or coulées. As they entered the prairie, they heard sweet and clear ahead of them, and to the right and left, "*Pap-a-botte;*" "*pap-a-botte;*" "*pap-a-botte.*"

"*Mais ecoutez,* m'sieur, leesten," cried Jaques; "don't I been tell to you doze papabotte was tick lak doze *petits fleurs bleus* on dat *vacherie?*" Then, seeing a pair of the brown-gray streaked plover, twenty yards to the left, he pointed them out and eagerly whispered, "Shoot, m'sieur, shoot quick; dey goin' fly 'way, yaas." Mr. Johns laughed and declared that he would rather flush them and shoot them flying.

The louder talk flushed the two birds; the first was dropped neatly, the other missed clean. The sportsman's aim was unsteadied by a jerk of the horse jolting the wagon and the nimble mid-air dodge of the plover startled at the first crack of his gun. In a space of three or four acres a score more of the birds, scared up by the double report, flew off a few hundred yards and scattered over the prairie. The shaggy fur-ball in the back of the hunting cart uncoiled itself at the command of Jaques, bounded out and brought back the dead bird. The light detonations of the smokeless powder created no commotion among the birds a little farther ahead; and before

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the men had gone on a hundred and fifty yards they saw another trim-legged plover daintily stepping about picking up his Mexican fly breakfast. He was within thirty feet of the gun when, with a loud clap of his hands, Mr. Johns scared him to wing. The bird listlessly soaring away was allowed the proper shooting distance, then killed. As the mongrel retriever jumped back into the wagon with that bird, Mr. Johns found that the fall to earth had split the plump breast of the plover, so over-fat was he.

After an hour or two of this shooting, Jaques drove his cart over to the thicker and taller growth near the edge of one of the rain-filled coulées. There he pulled up his pony and said, "M'sieur Jawn, you bes' git down now an' walk slow 'long doze high grass; I goin' sen' my dawg in dere; dey got praree cheekhen in doze grass, yaas."

The dog bounced out and began to thrash about, noisily beating this thick cover; and before long out flew a last spring's brood of prairie chickens scared so badly that they went "seven ways for Sunday." A pair of them fell dead on the prairie and eight or ten soared on half a mile away to another coulée. The fugitives were quickly followed and half of them were brought to bag when the survivors had, at last, by concealment or long flight, eluded further pursuit.

As the sportsman and his guide were returning at midday with a reasonable bag of plovers and prairie chickens, Jaques, who was hungry enough himself, put a keener edge on Mr. Johns' rising appetite as he piloted his pony over the prairie back to their hunting lodge.

He commenced:

"You lak h'eat doze papabotte, M'sieur Jawn?"

"Yes," answered Mr. Johns, "but would it not be wrong to cook them so soon after being killed."

"Non, non," ejaculated the Creole; "you bes' cook him soon as he git col'; you kip doze papabotte one day, his griss git what you call rahnceed; doze papabotte not lak doze *becasses* an' doze *becassines* (woodcock and snipe) what mo' good when dey been kip one or two wik—doze papabotte spile quick, yaas!"

"Then how should papabotte be cooked, Jaques?" asked Mr. Johns, smiling at his companion's enthusiasm over the theme.

"Well, I goin' tell you, me; you picks doze fedder from doze papabotte, you leef him so"——

"What!" interrupted Mr. Johns; "you eat him, Mexican flies and all?"

"Yaas, da's good for seasonin'—*mais*, if you no lak him '*en traine*,' you gots him; *mais*, you no spleet him wiz ze knife, non; you ties his laig wiz one string; you hangs him close one hot charcoals fire; doze papabotte he spin roun' and roun, '*comme ca*' (twisting his forefinger rapidly), on dat string; you ketch dat fat what melt in one *petit* plat h'onder dat papabotte; you puts *petit* salt, *petit* black pep'; *mais* no, but no griss on dat papabotte; he got plentee griss, yaas; when dat papabotte been cook' quick you puts him in dat *petit* plat wiz one ring green parslee roun him; you squiz one *petit morceau de limon* on dat papabotte; you h'eats dat papabotte an' ——!" Jaques finished his verbal recipe with a gustatory pop of his tongue in his distended cheek that scared the tired pony to a runaway gait.

Before the faintest trace of autumn frost can be found on the prairies of south Louisiana, the triple-named, triple-noted plover has flown far to the plains of Mexico.

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"THE GARDENS OF THE KING"

AN AMERICAN INLAND SEA

By W. S. Dunbar

ALONG the northern coast of Cuba, stretching westward from Nuevitas for a hundred and fifty miles and more, there lies a remarkable region which is still unknown to the seeker after new scenes, natural beauty and an outing in strange places. Here, lying parallel with the main coast and extending from east to west, are four large islands called Sabinal, Guahaba, Romano and Cocos. Surrounding them, as with a maze, are countless hundreds of other islets, big and little, that sprinkle the surface of the sea as though some giant hand had scattered them. Beneath, in water whose clearness defies the telling, is an animal life so fantastic in form, so prodigal in color, that its creation seems a joke of omnipotence. There are the shark and the sponge, the fairy sea-horse and the huge manatee, the corr and the crocodile, the scarlet red snapper and the giant turtle, the squirming devil fish, the rainbow-hued shells of monstrous mollusks, the star fish, the spiny sea urchin, the iridescent jelly fish and the jolly dolphin, all darting, crawling, playing and living in a forest of purple sea weed, or over a submarine desert of glistening sand. Aloft in the air, like a Brobdingnagian mosquito, floats the pelican, watching for his dinner; the white egret with his priceless plumes is wafted along like a great snowflake; the wild pigeon in myriads clouds the sky; innumerable cranes, with outstreaming legs, flap past, and the scarlet flamingo, like a flaming brand, sails by. On those hundreds of islands the rasping rustle of many palm trees sounds by day and by night. Out from the jungle comes the harsh discord of the paroquet and the parrot. The rat-like hutia scrambles among the trees. Spotted deer dance through the forest. The hideous iguana basks in the sun, and on some fallen trunk there lie the quiet, shining coils of a splendid boa constrictor.

It was here that Columbus, from the deck of his caravel, got his first glimpse of Cuba. He looked up into the sky and into the sea, and upon the land where the plumes of palm trees nodded to him as he passed, and then, exclaiming that mortal eye had never gazed upon a scene more beautiful, he named this archipelago, "The Gardens of the King." It is the same to-day as it was when it awoke the admiration of the Discoverer.

Nuevitas, which is the natural starting point for a trip among the Jardines del Rey of Columbus, is but five days' sail from New York. Up to this time, to the average traveler, a visit to Cuba has meant simply a trip to Havana, with perhaps excursions to the nearby towns. But the sportsman, the amateur naturalist, the man who craves to get away somewhere and see strange things will let the cities look after themselves, and take to the woods or the water. In the Archipelago along the north coast of Cuba he has both, and no region so easily accessible from the States is at the same time so primeval, so luxuriant with strange life, so full of opportunity for new experience both afloat and ashore.

Smith and I got our boat in Nuevitas, a light-draught, broad-beamed tub of an affair, just suited to the waters. Aft we towed a flat-bottomed punt for ascending crocodile streams and landing in very shallow places. "El Capitan" talked some English and understood more, and he, with another *hombre*, made up the crew. The whole maritime outfit cost eighteen dollars a week, and might perhaps have been had for a trifle less. We took guns for birds, a rifle for deer, crocodiles and manatee, a snake box, gunny sacks, knives, canvas hammocks, head and hammock coverings of the finest obtainable cheesecloth, rain coats, leggings, gauntlets, and a few simple remedies suggested by a local physician. Our commissary department was built upon the native bill of fare, which is both wisest and cheapest, and we avoided all fruits. Our staples were coffee, sugar, cigars, matches, rum, sweet potatoes, rice, salt, beans, flour and bacon. We wore stout canvas suits. Afloat,

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our crew sometimes wore linen trousers and hats, and sometimes just hats. A man should always wear a hat in Cuba. Our meals were cooked aboard, in a charcoal stove, with coffee hot at all hours. At night, except when too far inland on the main coast, we slung our hammocks athwart ship and shielded our faces from the glare of the moon. The Cubans curled up. Thus equipped, we set sail.

The archipelago of which I have spoken is, roughly speaking, a breakwater lying from ten to twenty-five miles off the main coast. Between the larger islands and the mainland therefore, are some 2,500 square miles or more of waters, and this miniature inland sea is studded with islets built up through the ages by coral polyps, and decorated with a riot of tropical green. Here and there are long, narrow, twisting passages leading to the open sea. Sometimes these channels are so overhung with trees and vines, so hidden, that they might be passed at fifty yards without detection; and within them, where they widen out, the waters are as quiet as the surface of a mill pond. The great bay itself is shallow. Occasionally there are spots where from fifteen to thirty feet of water may be found, but for scores of miles the bottom of the sea is only six or eight feet below its surface, and as flat as a barn floor. So, lying face downward on the bit of deck in the bow of your drifting boat, you may study every incident, every crab comedy and cannibalistic tragedy in the drama of submarine life, all performed for your particular benefit.

Sometimes as you float along you will see a young shark, sneaking like a wolf behind a hedge of restless seaweed, while a dozen little kittenish fish are playing near. A bit farther on you see a big brown star fish, a foot in diameter, walking along with all the ponderous dignity of a banker on a Sunday morning. Then, dimly, you see a long, black shadow ahead, and as you draw nearer the shadow resolves itself into the water-logged trunk of a sunken palm tree, and at last, when your eager face is just over the sunken log it turns its long, narrow snout, raises a flurry of sand with its feet and tail, and slides away in the shape of a ten-foot crocodile.

Following the high, rugged coast which extends for some distance west of Nuevitas, we passed in a deep channel between two bold, forest-clad islands, and then stood away for the passage which connects Nuevitas bay with the archipelago, south of Sabinal island. The bay of Nuevitas, at least a hundred miles in circumference, filled with odd nooks and islands, and surrounded by peninsulas, promontories, inlets and weird mango swamps is itself worth several days, but the unknown lay beyond. Soon, however, the marvelous panorama of that magnificent, immense, land-locked harbor will be discovered and appreciated. Then hotels and the winter homes of nabobs will crown its bluffs, and Bermuda will be forgotten.

The channel leading westward into the region of the archipelago is for some unscrutable reason called the Shanghai. Through this tortuous passage we squirmed next day, sometimes propelling our craft by poles, sometimes with all hands overboard, pushing and pulling, while the overhanging vegetation swept the deck. As we laboriously rounded one abrupt turn within an oar's length of the shore, "Capitan" stopped short, pointed and whispered, "*Maja grande.*" I looked, and there, a dozen feet away, lay a magnificent snake. He was draped on a fallen palm, right by the water's edge where the jungle began, and was within a few inches, either way, of fifteen feet in length. His girth was about a foot and a half. The sunlight, sifting down through the waving branches, touched him, and seemed to turn his skin to burnished, iridescent metal. I had hunted and caught garter snakes, water snakes, black snakes and that ilk at home, but I had not before met a boa constrictor face to face on his own door step. Under such circumstances he inspires a certain respect. As his firm flesh rose and fell with his breathing, catching the sunbeams at different angles, his coloring turned from bronze-red and brown to black and peacock purple, like silk that changes. Not once did he move, for he was not afraid. Yet he was ready to move if need be, for his head was toward us, and that he could move with good effect we well knew. In the open we four could have got him, but there, with water on the one hand and an impenetrable jungle on the other, a fight with that thrashing catapult was not to be thought of. So we left him, still quiet, still ready, still watching, still shimmering in his raiment of royal color.

Some twenty miles to the westward of the Shanghai passageway, and on the

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mainland, a few days later, we found a river that swarms with crocodiles and alligators. At times they lay around on the bottom of the bay or floated on its surface, outside the river's mouth, by the dozen. The alligators we could often lift up from the bottom in shallow places with pole and noose, and calmly shoot them if we chose. The crocodiles were much more wary. We went up this river one night in the punt, before the moon was high, and it seemed as though we were bound for the land of hobgoblins. On each side was the black forest, overhanging. As always, the breeze blew strong, and long, twisting vines swayed out from the blackness and rapped the boat, or tapped us playfully, so that our teeth rattled with a fear that they might not be vines. Lizards fell aboard and danced over us joyfully. From close behind would come the bellow of a big bull alligator. Abeam there would be a sudden splash, as though a grindstone had dropped into the water. From the depths beneath gleamed the phosphorescent fires of some strange animal. The air was filled with noiseless beetles that carried green electric lights of extraordinary brilliancy, in the fitful glare of which we looked like dead men. And the palms kept always whispering, "Shall we catch them? Shall we catch them?"

After we were safely back in our hammocks we could appreciate that little excursion into the darkness, but while it lasted it was a bit creepy. The next night we sailed away, and for miles we had nine big crocodiles for company, whose eyeballs gleamed astern in the moonlight.

It was a week after meeting that boa in the Shanghai passage that we caught our first big snake, though we had killed five between six and nine feet long, of which we kept the salted skins for belts and slippers. Smith found the big one. He was pushing aside some small undergrowth in a little glade at the edge of an island when he stopped, backed away, and then turned and beckoned. We all got there a moment afterward with the gunny-sacks, and found the serpent coiled up and stupid after a recent meal, the outlines of which were yet faintly visible. Our plan of action, oft rehearsed, was simple, and the Cubans had frequently done similar work. Irritated by "Capitan," the big snake poked his head out from beneath his folds and began to hiss. Then, watching my chance, I threw a sack over his head to blind him, grabbed him just behind the jaws and held on hard. Simultaneously the reptile uncoiled, the others threw themselves upon his writhing body, and we became a confused blur of arms, legs, snake and Spanish profanity. Soon we had him stretched out and harmless, however, and with his head still covered we lifted him up, walked him to the snake box and made him prisoner. He was perhaps a little longer than the first one, and weighed about a hundred pounds. The largest boa whose skin I myself measured in Cuba was sixteen feet and nine inches long, but I would not be surprised if there are a few in the island that reach nineteen, or possibly twenty feet. The full-grown Cuban *maja* is much handsomer, and decidedly larger and more powerful than the boa constrictor of the Amazon region.

We saw but one manatee, and didn't get him; but while in a locality frequented by that strange animal I had an adventure. Smith and I were wading near the shore of rather a large island, gathering the gaudy shells of giant mollusks. He was farther from the land than I, but in a shallow spot, with the water to his waist. I was up to my shoulders, just at the extreme end of a little promontory of coral rocks that were upreared from the water like huge cinders, all covered with needle-sharp and jagged points. The final rock of this miniature cape, with its almost perpendicular sides, rose some six feet above the water, and I was about ten feet from it, going to the bottom of the bay whenever I saw a fine shell. The Cubans were on shore, smoking cigarettes. Suddenly I heard the Cubans shout aloud, and although I did not understand the words they screamed, I knew that cry meant danger.

One sweep of the eyes was enough. There, perhaps fifty yards away, was a shark whose dorsal fin stood a full foot and a half out of water. At first he made for Smith, but that gentleman set up such a kicking and howling and made so swiftly for dry land that the black fin veered, and shot toward me. Then my paralysis disappeared. With one wild leap I reached the cruel coral rock. I clutched it, dug my toes into its hospitable sides, pulled my last leg out of the water just as the yellow-white belly shot past, and as I fell with bleeding hands and legs, safe on its jagged top

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it felt softer than the feather bed in the attic of my grandfather's farmhouse.

I have heard it said there are no man-eating sharks. I am not competent to make an authoritative statement on the matter, for I had a chance to settle the question, and failed to do so. But I shall always have my own opinion.

That day we learned two things. One was not to go farther than waist deep in those waters, and the second was that a large, strong wire scoop, with small meshes, and attached to a pole, is a tool of great value for bringing up marine specimens.

So we drifted along, some days fishing, others bagging birds, snakes or marine life. At odd times we tried to preserve some of the extraordinary beetles and other insects of the region, but we were not equipped for that work, and could not do it. The ants made banquets of our treasures, or carried them quite away. Sometimes, after rain or when the wind was in the wrong quarter, we would come across an international convention of mosquitoes, or another multitudinous pest in the shape of a minute sand fly. We had prepared for these, however, with our cheesecloth head and hammock coverings and gauntlets, and could thus defy them. The Cubans didn't mind the insects, but without the cheesecloth there were days when our flesh would have been picked from our bones. When we got nipped by a centipede or tarantula, or stung by a scorpion, we tied on the bite a slice of fresh, raw garlic, as the Cubans do. The poison of those vermin hurts, to be sure, but is not to be feared by a man in good health.

Our longest trip ashore was of three days, leaving one Cuban with the boat, while we, under guidance of the "Capitan," were led by devious trails through the forest to the foothills of the Cubitas Mountains. There, at the dawn of a glorious morning while hidden at the edge of a little clearing, Smith and "El Capitan" brought down two deer. They were dainty little things with gold-brown coats, white-spotted, and weighed about fifty pounds on the hoof. They were full grown. Then we tramped back to the coast, past wild orange trees, past rubber trees, past mahoganies and Spanish cedars three feet in diameter, past a million parrots that berated us overhead for the invasion of their dominion, whilst a million lizards, clad in blue, green and brown, were forever dancing ahead of us upon the ground.

One other scene, the fairest, perhaps, of all, lingers in my memory. It was midday. The breeze was barely wafting us along, and the glare of light that fell upon us from the zenith seemed to make the air tremble. Presently we drew near to the end of a long, slender island, and lay gazing at it idly. Little by little the vision unfolded itself to us. Back a small way from the shore the royal palm trees lifted up their heads, and around their swelling, ash-gray trunks was huddled the tropic tangle. Within the forest the shadows made the green look almost black. Between the light green of the jungle's edge and the azure of the sea there lay a narrow beach of gleaming yellow sand, that stretched for a mile along the island's shore. And standing there where the blue waters met the golden sands, erect, motionless, extending from end to end of their chromatic paradise, was a line of scarlet flamingos, whose breasts were of a hue so vivid that each one seemed like a frozen flame.

We did not speak; we only looked. Slowly we drifted past that crimson army, the nodding verdure, the golden sands and the liquid sapphire ripples, until at last the vision was only a blur in the distance, and a song of memory. Then we shut our eyes for a long time, that we might not behold the things of the earth.

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SHOOTING BLACKCOCK AND CAPERCAILLIE IN AUSTRIA

By C. Holmes Cautley

"THERE is no real sport in spring shooting, but a great deal of discomfort," remarks a writer on "Russian Hunting Methods," in a recent number of OUTING. Nor, judging from his description of spring shooting in Russia, does this seem to be an untrue criticism. *Prima facie*, indeed, it does not seem easy to defend spring shooting as a sport—spring shooting which, of course, means shooting in the mating season. And yet in many parts of Europe the spring shooting of blackcock and capercaillie holds a high position in the estimation of sportsmen of wide experience and acknowledged authority. The late Duke of Edinburg was a great devotee of capercaillie shooting in the forests of Thuringia, while the Emperor of Germany and many members of the imperial house of Austria are addicted to the sport. In part, doubtless, this spring shooting owes its popularity to the fact that it takes place in what is otherwise the sportsman's dead season; but beyond this the method employed in shooting the birds is principally accountable for this popularity. This method, indeed, constitutes its defence as a sport. In the case of capercaillie shooting each bird has to be stalked separately, and two or three cock constitute a good bag, which can only be obtained by the exercise of much special skill in addition to patience, ready resource, and the like qualities, which the stalker of any game must ever have ready at command.

Before setting out to stalk the capercaillie the gunner must first locate the bird's *balzplatz*, as the place in the forest where he calls to his hens is termed in most parts of Austria. This is rendered comparatively easy by the fact that when the bird has once made choice of his *balzplatz* he seldom strays far from it. For preference he selects a larch or beech tree and perching himself on a high branch proceeds to call the hens. The bird repairs to this tryst each night at dusk, although he does not as a rule commence to call until some hours later—immediately before the dawn. Now, although the bird comes to the tryst at dusk, the darkness within the forest renders it impossible for it to be seen, else the gunner, by concealing himself in the immediate neighborhood, might shoot the bird straightway on its arrival—a method pursued, indeed, in non-forest districts where the chosen tree stands practically in the open ground. This method being impossible in the forest—since it would entail upon the watcher waiting from dusk to dawn for the bird's call to indicate to him its exact whereabouts—the capercaillie shooter there must perforce, employ a more sporting method, exercise his skill, and stalk his quarry.

For this purpose he relies upon his knowledge of the bird's call. This call not only betrays to the stalker the exact spot where the bird is, but it also tells him when he may advance without fear of disturbing his quarry for the cock at a certain period of its song becomes completely blind and deaf. This period occurs at that point in the call when the clear, slow rat-tat notes of its commencement have been so quickened that all the distinctive notes are lost. At this point of the serenade, the bird being blind and deaf, the stalker is enabled to advance, which he does by making some three or four springs forward—not more, the blind and deaf period being of very short duration.

Young birds when serenading, frequently repeat the call again and again without intermission, but the older ones often pause some minutes between each repetition. This, of course, adds considerably to the length of a stalk and also to the nervous tension involved—for five minutes waiting in the silence of the forest seem an interminable time to the anxious stalker. One of the principal difficulties a stalker has to contend with is when several *balz-plaetze* are in the same neighborhood. In this case there is the danger that he may mistake the calling of another bird for that of his own, and so advancing at

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the wrong moment put his intended quarry to flight.

Sometimes it happens that two birds reach the crucial period of their song at the same moment, in which case, of course, one of them may be shot while the other remains quite unconscious of the discharge of the gun—so absolute are the blindness and deafness. It was owing to this cause that the present heir to the Austrian throne, the Archduke Franz Ferdinand, got two birds with successive shots—practically a right and left—out of the same tree. He had shot one when the keeper who was with him, called his attention to the fact that another cock was left in the tree. For two birds to be calling in the same tree is indeed of the very rarest occurrence, for the capercaillie is a fierce fighter and would allow no rival male bird on his serenading ground were he able to prevent it.

The capercaillie cock always serenades his hens from the tree, and only goes to ground when he has collected the members of his harem around him. Once the cock has gone to ground it is practically impossible to shoot him unless he can be called away from his hens. This is sometimes achieved by simulating the call of the hen bird, when he may leave the hens he has already collected around him and running towards the deceptive call make it safe for the gunner to shoot him without endangering the hens, which, throughout those states of Austria and Germany where this method of shooting prevails, are never shot.

Blackcock shooting is very nearly allied to that of capercaillie. The male birds only are shot, and they in the spring of the year. The blackcock does not call at so early an hour as the capercaillie, nor does he serenade his hens in the forest although he likes to be in the neighborhood of trees. Calling, therefore, in the morning light, in the open, and never becoming blind or deaf during the course of his song, he is much more difficult to approach than the capercaillie, and is usually shot from shelters erected near his calling ground. In Austria and Germany they term the blackcock *der spielhahn*—the playcock—and certainly a blackcock calling to his hens is a very pretty sight. He calls from the ground—the ground which is generally snow-covered in the heights he frequents in the hill districts he loves best. Against the white ground of snow his black form stands out conspicuously as he walks about, the monarch of all he surveys and looks the character—his feathers puffed out, his tail spread, the while he struts or leaps into the air in his pride and exuberance. The blackcock is a keen fighter, and so as well as imitating the call of a hen to attract a cock, a gunner will often imitate the call of cock, when his dupe will rush up at full speed to inflict chastisement upon his supposed rival. The blackcock's call is not unlike the coo of a woodpigeon, but so prolonged and loud that it can be heard a great distance—many times as far as the call of his big cousin *der grosse hahn*, as the capercaillie is sometimes termed in contradistinction to the smaller blackcock *der kleine hahn*. It may be mentioned that as well as the pure bred birds of both species one finds a certain number of hybrids. The reason of this interbreeding is probably due to the fact that a young or weak capercaillie cock, inhibited by his older and stronger brethren from forming a harem of hens of his own species, sometimes mates with a gray hen—a union which the comparatively small blackcock, keen fighter though he is, is unable to prevent.

It only remains to add that *balzplaetze* chosen by the birds are sometimes in rocky and precipitous places—difficult of access at any time; and *a fortiori*, much more so when one is engaged in stalking, and when, as is frequently the case, the ground is covered with snow. Far from being mere butchery, this form of spring shooting lacks none of the elements of true sport, and skill, strength, and even physical bravery have often to be exercised to bring a stalk to a successful issue. In the Austrian Alps a gunner will leave his schloss at two or three o'clock in the morning, or, if he is going to stalk a bird whose *balzplatz* is far up in the hills, he will set off the previous day, and pass the night in a shooting hut in order to commence his stalk with the first call of the bird before dawn. And he will consider himself well rewarded for his trouble if he obtain one good cock whose head, mounted with the tail feathers spread out fanwise, he can add to his sporting collection.

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TARPON AND SHARKS ON THE EAST COAST OF FLORIDA

By R. B. Seager

HAVING spent a part of the winter of 1901 fishing about Miami, where is to be had the finest sport in Florida, if not in the world, and caught king-fish and nearly all the other varieties found there such as barracuda, groupers and amber-jacks, my ambition grew to catch a tarpon, the prize fish of the Florida waters.

Those unfamiliar with tarpon fishing and who see the royal fish perform would be likely to suppose a block and tackle with a mast for a pole the only suitable weapons with which to attack such a powerful creature. However, the real outfit is not very heavy, and I could hardly believe when I purchased mine that it would stand the necessary strain. A tarpon pole is usually about seven feet long and made of carefully selected pieces of bamboo, greenhart or similar wood. The guides must be very smooth and every precaution is taken to prevent the wearing of the line. The reels are very carefully made and usually carry six hundred feet of line. A cheaply made reel is apt to jam as soon as so great a strain is put on it, and no one should ever be persuaded to economize on this part of the outfit. The mouth of a tarpon is practically solid bone and there are very few places in which a hook can possibly find a hold. The best hooks for trolling are fastened to six foot long piano wire leader, which, if kept free from rust, is seldom known to break.

The usual method of fishing for tarpon is by trolling from a rowboat. A shiny bait is cut in the form of a triangle or long diamond, and fastened to the hook, so that in the water it will have the appearance of a small fish. Every angler has his own ideas and ways of baiting a tarpon hook, but we chose to hook our baits through the end so that the rest waved freely in the water behind; and this seemed more successful than any other mode. We found almost anything would do for bait; the generally accepted lure, mullet, was no better, if so good, as king-fish, white shark skin or the skin of other light-colored fish.

As soon as a tarpon strikes, the hook must be firmly set into the mouth of the fish, which usually jumps a few seconds after taking the bait; if there is no jump you may be sure you have captured a shark or some other large fish. The length of time it takes to land a tarpon varies from ten minutes to two or more hours, according to the skill of the fisherman and the character of the place in which the fish is hooked.

It is usually supposed, I believe, that tarpon fishing is confined to the west coast of Florida, from Tampa to Cape Sable, for although large schools of these fish are found on the East coast, occasional ones even caught, yet anglers seem to consider that the fish do not begin to bite well until they have worked around into the Gulf. Up to the time we started, about the first of April, very few fish had been caught on the West coast and so we resolved to cruise through the Keys with the idea of testing the quality of the East-coast fishing.

We spent the first three days in king-fishing out on the reefs, but on the morning of the fourth as we were crossing Barnes Sound, some forty miles south of Miami, we ran into an immense school of tarpon lying near the mouth of Jew Fish Creek. As the water was only about eight feet deep and very clear, we could see them plainly; and they were very much at ease, some rolling lazily, others lying with their back fins just showing above the surface. For minutes we rode through the school without disturbing them, then on a sudden they appeared to awaken and shortly thereafter, each boat had twenty or thirty fish following, apparently out of curiosity, which is not their habit as I afterward observed. They were close behind my boat, so I reeled in till my bait was in their midst. Almost immediately I felt a strike, which seemed so puny for so large a fish that I could scarcely credit it, but as the tarpon started off I found it quite as

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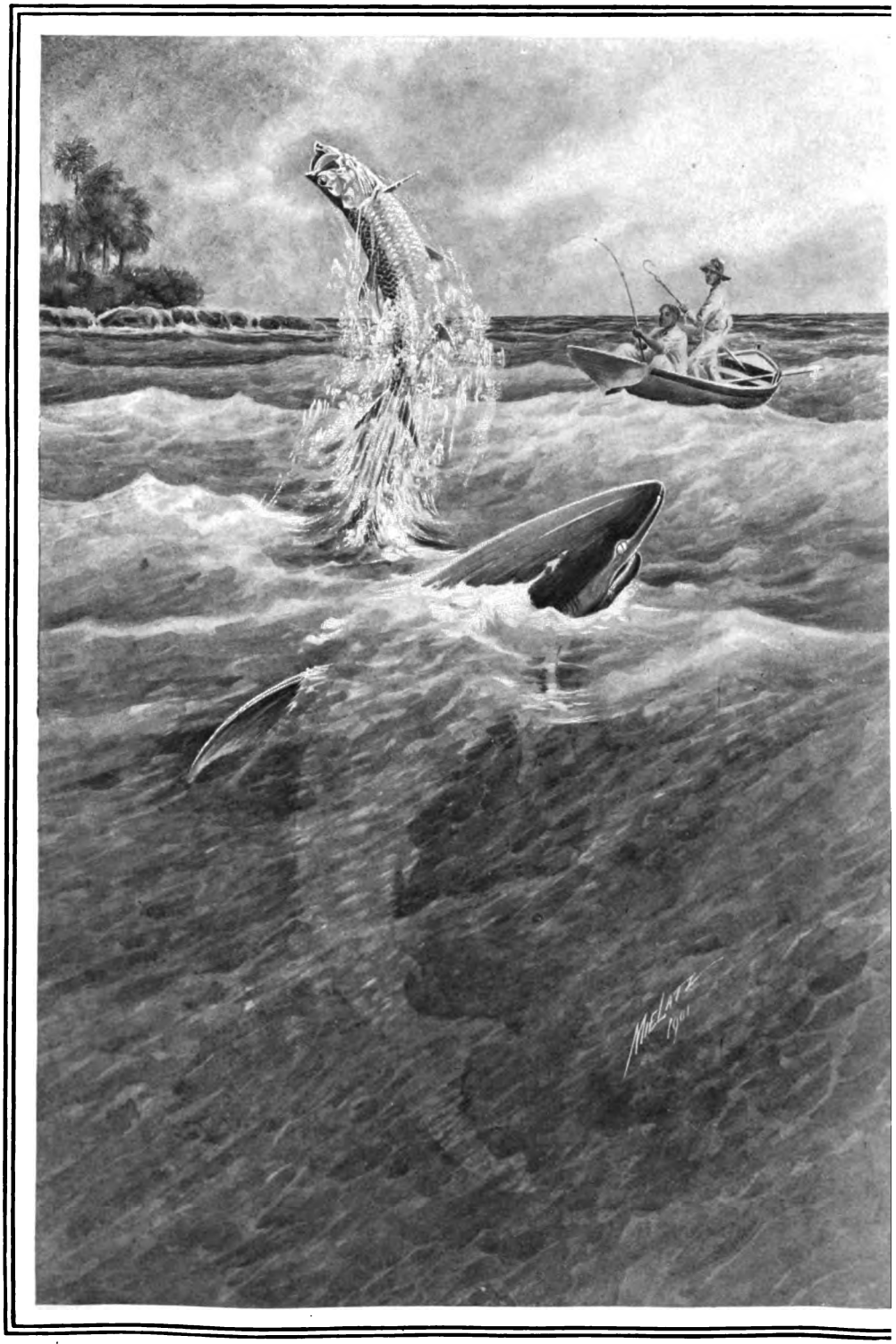

THE TARPON SEEK TO ESCAPE THE FURIOUS LUNGE OF A BIG SHARK BY SPRINGING CLEAR OUT OF THE WATER.

[Sketched from life.]

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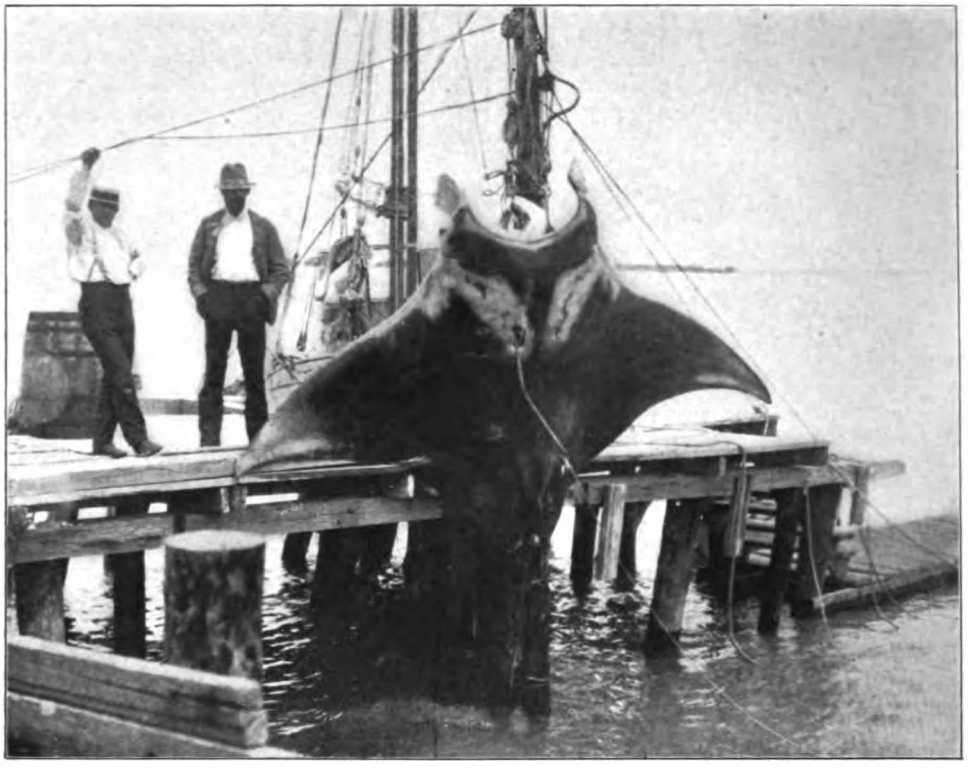

A DEVIL FISH, FOURTEEN FEET ACROSS THE WINGS—PUNTA ROSSA.

strong as it looked and I certainly expected to lose all the skin off my fingers as the reel handle hummed around. I have never experienced any sensation to compare with that on seeing this huge silvery creature shoot into the air and shake himself in his efforts to dislodge the hook. Because of my excitement and of my inexperience, I must have given my fish slack line or else the hook did not hold, for it got away after I had played it fifteen minutes. However, it was not long before I had hooked another, which I landed without disaster, though at one time during the struggle I felt that the fish had as good a chance of tiring me out as I had of getting him.

In the afternoon no sooner had we started out than the tarpon seemed to take fright, making off up the sound and throwing spray as they darted along somewhat like small whales. In fifteen minutes all that could be seen of our school of tarpon were a few splashes off toward the horizon. Much disgusted we consoled ourselves trolling for the groupers that abound in the creek, and occasionally hooking a good snapper which furnished lively fighting with our light steel rods. Shortly after sundown we heard a tremendous splashing at the mouth of the creek, which we at first thought to be sharks tearing up the dead tarpon we had tied to a stake on a flat. As the noise continued, however, I went to investigate and lo! there was our tarpon school of the morning banked up at the mouth of the creek and going through it toward the ocean as fast as they were able. The moon was full and very bright, so that we could see the fish lying on the surface from the close approach they permitted. They were evidently very hungry, and we hooked eight in about an hour, three of which were landed. It was a strange and fascinating scene for the sport, with the huge fish splashing and swirling not an oar's length from the boat, as we disturbed them in the bright, tropical moonlight. Every few minutes a shout would go up from one boat or the other, and a big silvery creature shoot six or seven feet up into the moonlight, falling back to send the spray flashing like molten silver. At last they disappeared again and

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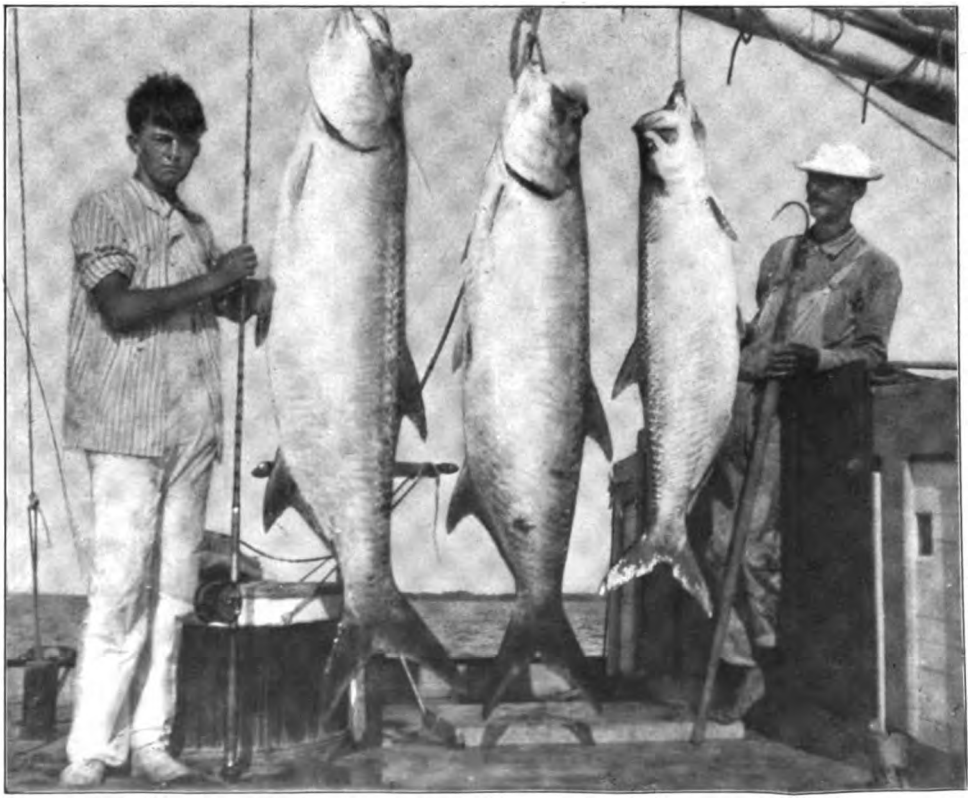
we went back to bed hoping our luck might continue; for six tarpon in one day was exceptional sport. The reason for the departure of the fish was explained next morning when a cold norther, which soon developed into a gale, set in. The tarpon is essentially a warm-water fish, and at the first signal of an approaching storm, which it detects even before the barometer, immediately seeks refuge in deep water or in the Gulf Stream, where the temperature is little affected by changes of weather.

From Barnes Sound we moved slowly down the coast to Indian Key, securing fine snapper fishing. Those who enjoy this milder sport will find on moonlight nights the finest snapper fishing imaginable in the waters from Barnes Sound to the Bay of Florida. Every time we tried it we brought in half a dozen weighing about six pounds apiece, as the result of an hour's fishing.

At Indian Key we found a few tarpon and caught three large ones, the biggest weighing one hundred and sixty-six pounds. Bad weather continued, however, and so we pushed on to Bahia Honda where we found a fairly good-sized school.

I had only been fishing a short time before I caught one, and soon after one of our party, Mr. George, killed another—very quickly, as it apparently had in some way injured itself in striking the water on its first big jump—which weighed two hundred and thirteen pounds, or three pounds more than Mr. Vom Hofe's tarpon, which then held the record. As Mr. George wanted his fish mounted and its weight attested, we made sail for Key West at once, reaching there about midnight. Next morning we found the tarpon still weighed one hundred and ninety-eight pounds, which was more than Mr. Vom Hofe's fish had weighed after being the same length of time out of water. The decrease in weight, after being many hours out of water, is caused by shrinkage and the loss of blood, which in a large fish is great. This one Mr. George had killed was seven feet and two inches long, and forty-six inches in girth, measurements which exceeded those of the Vom Hofe record fish.



OUR FIRST TARPON—BARNES SOUND.

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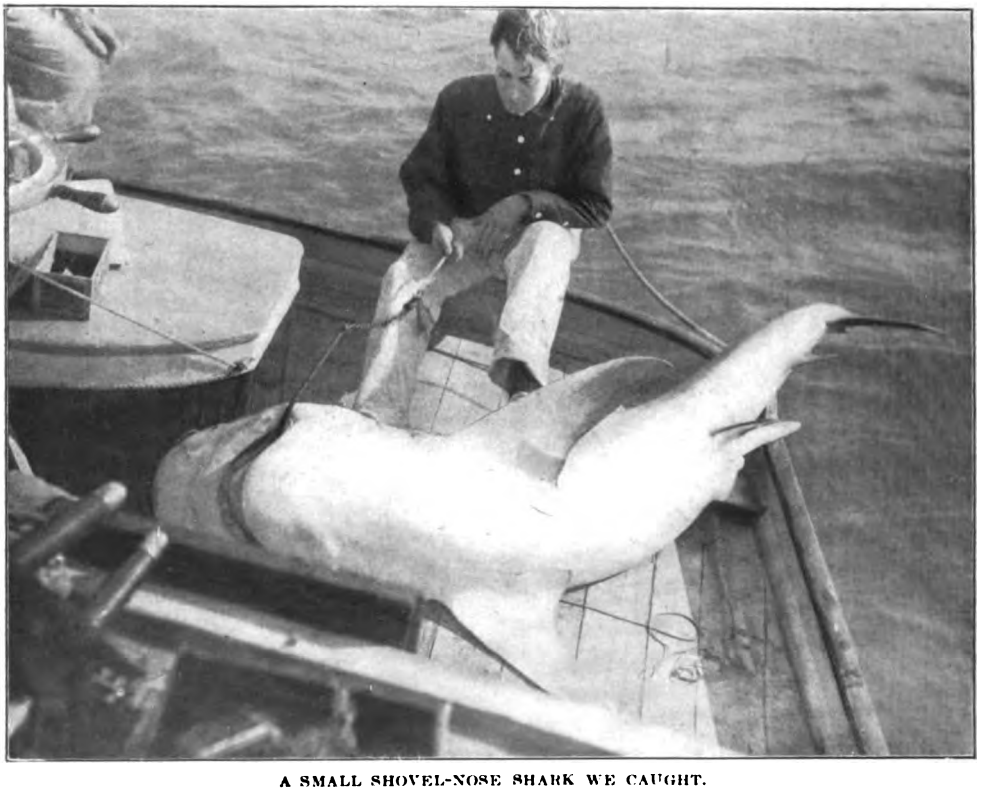
On returning to Bahia Honda, we found more fish than when we had left two days before; and they were biting very well. But more inhabitants of the deep, not nearly so much prized, had appeared; in other words, the bay was full of immense sharks that persistently followed each boat as soon as it touched the water. However, we caught three tarpon with a deal of trouble, as all were torn by the sharks before we could land them. One large tarpon was bitten in half as cleanly as though cut with a knife, just as Mr. George was about to gaff it; another which took me a long time to land, as it was hooked on the outside near one of the fins, was twice attacked by sharks, and at last had a piece torn out of its stomach. To have one of those ugly things rush right up to the stern of the boat in an effort to get at your fish was not altogether agreeable. When the second shark took hold on my tarpon, it was not six feet from the boat and I hit it over the head with an oar before it would let go; even then it came up to the side of the boat, and would not quit until I had given it several more hard raps. They could so easily have upset the boat, had they sense enough, that it made us all somewhat uncomfortable for fear a clever one might happen to be among them. Sharks are very cowardly until they taste blood, after which they are fierce and aggressive. The furious lunge of a big shark at a fish is suggestive of its ferocity, and the ease with which the one bit in half a tarpon nearly seven feet long, and forty-two inches in girth, left little doubt as to the chances a human being would have against one of them in its native element.

That evening we put out a shark line which was almost at once seized, and we set the hook, and as soon as the shark felt it, he gave a lunge which nearly jerked us overboard. He swung the stem of our fifty-foot schooner around against both wind and tide, and threatened to break our stout manila rope like a thread. He was not very large, measuring only twelve feet, but seemed to be very thickset, and muscular, and it was all that five of us could do to drag him up



A SMALL SHOVEL-NOSE SHARK WE CAUGHT.

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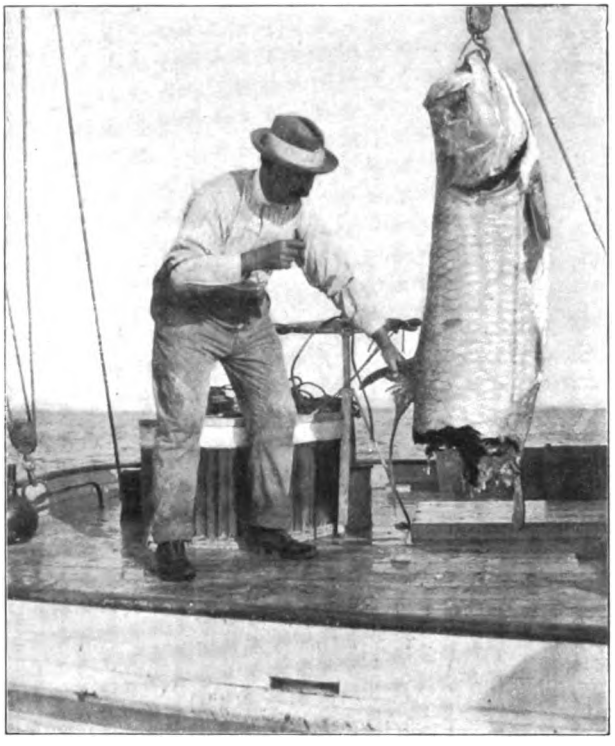
on the beach. Next morning we were so closely followed by these savage, dull-brown shadows, that it was evident we could not land a fish if one was hooked, so reluctantly we made sail for Sable River, on the West coast.



THE WORK OF ONE SHARK.

The run up to Captiva Pass was very uneventful; only four or five tarpon were even seen, and very little fishing of other kinds was to be had. The only remarkable thing we saw was the devil-fish, or Mexican manta, a species of ray, which grows to measure twenty feet or more across its wings. The gulf near Punta Rossa is a favorite haunt of theirs, and on warm, calm days, they can often be seen lying in the tide streaks, swallowing the foam and weeds which they sift for minute insects. Their broad, black backs make a splendid mark for a harpooner, and I was told they can tow a small boat great distances before giving up.

It is much pleasanter to fish in the channels on the East coast than the passes of the Gulf as the former are always comparatively calm, and there is never danger of breakers because of the reefs three miles out which take the force of the waves long before they reach the land. The water is like that of the Gulf Stream, beautiful in color and very clear, quite different from the dead-looking liquid in the passes on the Gulf. Moreover there is always to be had fine fishing of some kind in case tarpon fail to appear. The reefs are alive with groupers running from one to sixty pounds, mutton-fish, barracuda and amber-jacks; the last two are fine fighters and grow very large. Near Miami is splendid king-fish ground, probably rivaled only by that near Key West. A king-fish is a large species of mackerel weighing from ten to fifty pounds, which makes a sharp though short fight. On days when all conditions are perfect they can be caught in great numbers, and often people fishing with hand-lines bring in as many as one hundred; more than can possibly be used, and therefore more than should be allowed, as it must eventually ruin the ground.

The reef fishing is very exciting, for one never can tell what he may hook, and must be prepared for almost anything from a small mutton-fish to a big amber-jack. The fish often follow a hooked one up to the boat, and I have several times thrown another bait into the midst of twenty or thirty and watched them rush for it, though usually it is taken by a grouper, which never stops to examine but will swallow anything.

In the Gulf Stream, which lies only four or five miles off the East coast, the fish are again of different varieties, including dolphin, bonito, sword and other deep-sea fish. The colors of the dolphin are, of course, renowned, but though I expected to see an attractive fish, no imagination can picture the beauty of its iridescent tints and brilliant markings. Dolphin and bonito are among the most agile fish in the world, and it is all but impossible, even when the boat is going from them, to reel in the slack fast enough when they come toward you.

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TRAVEL IN RUSSIA

THREE THOUSAND MILES FOR FIFTEEN DOLLARS

By Ewing Cockrell

SITUATED in the heart of the great Eurasian continent, within easy reach of the traveler, lies a country absorbingly interesting, fairly accessible and yet almost unknown. The average tourist considers Russia entirely out of the range of his travels, yet in the Tsar's land, one can travel in many ways with more comfort, ease and economy than he can anywhere in Europe.

In the first place, the relations of the Russian government with the traveler have been greatly exaggerated and misrepresented. To enter Russia you need only to go through the formality of presenting at the frontier your passport viséd by some Russian consul. When you stop at any place you give your passport to the hotel keeper, who has it recorded with the police and then returns it to you. When you wish to leave Russia your landlord has the passport properly indorsed, and you need only to present it again at the frontier. In reality your passport is a convenience to you, since it saves you having to register at each hotel, as is required in the United States.

This is the only supervision the government exercises over travelers. With your passport you may go, as my wife and I did, not only all over European Russia, but also into Siberia, without letters of introduction or other documents of any sort.

With the aid of your guide book and a little French or German, you can easily reach St. Petersburg, your most convenient starting point. There you can then map out your whole trip. To travel at all advantageously or extensively in Russia you will need a slight speaking knowledge of either French or German, as English is not spoken except by a few people in the large cities. And to get among the people themselves and make the most of your trip, a little Russian will be indispensable. This can be easily acquired while you are in St. Petersburg, and will remove completely the only serious obstacle to Russian travel.

When you have finally planned your trip you will find at the very start that the government, instead of hindering you, renders you the greatest service. All the railroad and steamboat lines in the empire are under governmental control and regulation. Twice a year an official guide is issued, which gives a complete time table of all trains and steamers and the rates of fare. And these rates have been made so low by the government that in many cases you can travel as cheaply as you can stay in a hotel.

The railroad cars are built, in general, on the American plan, with an aisle running the whole length of the car. The first-class cars and some of the second-class also are divided into separate compartments or staterooms, thus allowing complete privacy to every party of passengers, except when the car is unusually crowded. There are no sleeping berths, though on some lines by paying an extra fare you can have a whole compartment reserved for you. And as the seats are over six feet long and quite broad, this gives you a very good bed. As a rule, however, it is entirely unnecessary to reserve compartments, for it seems to be an established, though unwritten, law that no more people than there are sleeping accommodations for shall occupy a state room at night. And though your ticket may nominally entitle you only to a seat, yet if you have taken a whole berth and have lain down, no conductor or guard will disturb you, even though some new passenger may be absolutely without a place to sit down. With a few exceptions, all the Russian trains run at a very slow rate of speed. An ordinary train between St. Petersburg and Moscow, a distance of four hundred miles, makes less than twenty miles an hour, while the fastest express train (for which an extra charge is made) makes only thirty miles an hour.

Dining cars are unknown. But ample provision is made for the passengers through excellent restaurants at different stations along every line. These restaurants usually have a regular dining-room and a lunch-

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counter. The bill of fare is varied, of excellent quality and very cheap. On long trips the Russians often carry with them their own teapots and make tea in the cars, boiling water being procurable at every restaurant station.

The best railway accommodations are in that much-misrepresented land, Siberia. There, all the cars are new and clean, with the most modern improvements, and the amount of travel is small enough to give everybody plenty of room. The use of wood for fuel in the locomotives results in an average speed of only about fifteen miles an hour. But there are many restaurant stations with exceedingly cheap food, while boiling water for your tea is furnished free at the stations. One of the most delightful railway trips we made was a long, tedious one of ten days coming back from Siberia. The passengers in our car were all educated, refined men and women, who had come from Irkutsk, Krasnoyarsk and other Siberian cities. Among them, they spoke French, German, Italian and even English, and were exceedingly kind and pleasant to my wife and me.

This trip, by the way, from Tomsk to St. Petersburg, a distance of three thousand miles, costs only about fifteen dollars, or one-half cent a mile. This is a second-class fare and practically gives you sleeping accommodations also, without extra charge. For shorter trips of from five hundred to two thousand miles, the fare varies from one cent to five-eighths of a cent a mile, being graduated according to the distance traveled.

The most delightful mode of travel in Russia is by steamer. A trip on the Volga is almost idyllic. The staterooms are about like those on the railroad trains, and all open on the deck. A restaurant on board the boat furnishes food that is both good and cheap. The fare for an ordinary trip, say of two days, as from Neezhny Novgorod to Samara, a distance of six hundred miles, is two dollars and seventy cents. From Reebeensk on the upper Volga to Astrakhan on the Caspian Sea is eighteen hundred miles. The steamer fare (second class) is seven dollars and thirty-eight cents, and your food will cost five dollars. This makes a total expense of twelve dollars and thirty-eight cents for ten days' travel, or one dollar and twenty-four cents a day—less than you pay elsewhere in Europe merely for room and board in a cheap pension.

Many of the most interesting parts of Russia are inaccessible by either railroad or river. To reach these you must travel overland by wagon. That this may be done conveniently the government has established a complete posting system. It is very crude and rough, but it is effective and accomplishes its purpose thoroughly. In each village on a posting route, one of the peasants is selected to furnish conveyances to travelers. This conveyance is called a tarantass, and is simply one of the rough Russian work wagons, with a top over the rear end of it. It is made of green saplings absolutely without springs, and the bed of it is filled with straw. There are no seats except the rough board upon which the driver sits in front. The traveler sits on the straw in the back of the wagon, or lies down, as he pleases. When you have strapped on your baggage and are ready to start, the driver gives a whoop, and the horses start off in a gallop. This dashing burst of speed is no idle show either, for until the next station is reached, a distance of ten or twenty miles, the hardy little Russian ponies continue to go in a gallop or fast trot. No road is too rough for them and their driver. They will dash over a road full of deep ruts and big holes without a break of speed. How either the wagon or the travelers can endure such treatment, I cannot understand—although, as a matter of fact, I found that the traveler soon became accustomed to it.

By the posting system you can travel at any time of the day or night that you please, and it is quite customary for the Russian to travel all night, especially in winter, as the straw makes a very comfortable bed, and the wagon, having been converted into a sleigh, is delightfully easy. I well remember once in Siberia seeing a lady with her two small children starting off in a wagon to make a night trip of seventy miles, through a sparsely settled country, as unconcernedly as if she were taking a pleasure drive.

The posting fare is remarkably low. A trip between two stations about fifteen miles apart for two persons costs not over ninety cents. In fact, this is only three cents a mile, or as cheap as railroad travel in the United States.

The hotels, where you will stop in your travels, you will find to be of all sorts and conditions. They will vary from the great "Europa," in St. Petersburg, to the two-room log house of the peasant. The best

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THE FAMOUS MILITARY ROAD OVER THE CAUCASUS.

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hotels are in St. Petersburg. They are newer, cleaner and more modern in all respects. In Moscow, the real Russian capital, the hotels are older and mustier and more odorous, though there are a few that are excellent in every way. In the smaller towns, the hotels are almost invariably old, inconveniently arranged, extremely dirty and very cheap. The greatest mixture of hotels, good and bad, new and old, cheap and dear, is to be found at Neezhny Novgorod during the Fair season. At this time the little town is visited by hundreds of thousands of people from all Russia, Siberia, Persia, Turkestan and even China and India. And the accommodations provided for them are as varied as the multitude itself. So great is the influx of visitors here that the government finds it impossible to keep track of them, and hence Neezhny Novgorod is, during Fair time, probably the one city of Russia where you do not have to deliver your passport to the police.

In none of the Russian hotels does the "American" plan prevail. You engage merely a room in the hotel, and dine when and where you please. In the smaller towns the room does not include even any of the furnishings except some chairs, a table and a bare bedstead. Sheets, blankets, pillow cases, towels, soap, lights and everything similar are furnished only on extra charges. To this custom there are two novel exceptions. Your shoes are always blacked free and meals served in your room without additional charge. In Russia, as elsewhere in Europe, the tipping system prevails, but in Russia it is carried to the greatest extreme. You give some sort of a fee to everybody in the hotel who serves you in any way—sometimes not excepting the landlord himself.

In traveling overland, you must, if you pause in your journey and do not travel all night, stay in the peasants' houses. And when you enter these you leave behind all refinements except such as you carry with you. Your room will always be dirty and with a musty odor. Often it will not have a bed, and you must sleep on the hard floor or possibly on some straw. Bureaus, mirrors, etc., are unknown, though your host will, if you ask him, bring you a tin basin of water in which you can wash.

Our first introduction to the peasants' houses revealed at once their whole character. It was at the end of the railroad in Siberia, and we were turned out of our comfortable room in the car to continue our journey by wagon or sleigh. That night we stayed at the house of the peasant who was to take us across the mighty river Ob and on to the next posting station. We reached our host's two-room house about nine o'clock at night. As we entered, we saw before us in that one little room the whole family of the peasant—father, mother, wife and six children. They were lying on the floor in their ordinary every-day clothes, and, without bed, mattress or bedclothes, they were calmly enjoying the sleep of happy, contented souls.

One of the great reasons why the Russian hotels do not furnish bedclothes and similar things is that they are liable to be so dirty in many of the hotels that the more refined guests will not use them. Hence it is the Russian custom to carry your own bedclothes, towels and all similar things, including often a samovar and teapot and china. By having your own bedclothes, you can make yourself a very clean and comfortable bed on the train or anywhere else that you can get a mattress. With your samovar and teapots, you can do a kind of light housekeeping that is practically no trouble at all, and yet that will be clean, wholesome and very cheap. We found that a samovar, two glasses, a few plates and some tea and sugar would make us comfortable anywhere. Hot tea and nice, fresh bread, supplemented by eggs, which could be boiled in the samovar, or by some of the many things which could be bought at the station restaurants or in the stores of the town, made us many a pleasant repast.

The hotel rates naturally varied greatly. In the big metropolitan hotels they were about as they are in similar hotels elsewhere in Europe. But in the smaller, less pretentious houses, you could, by adopting Russian customs, live very cheaply.

In Moscow, $1.25 a day will give you comfortable accommodations and good meals. In Samara, a city of about 100,000 inhabitants, situated in the great productive region of Russia, the same fare would cost only sixty cents a day. In our hotel in Samara, we could get an excellent dinner for nine cents apiece! The cost of living in Samara is fairly typical of that everywhere in the central, eastern and southern parts of European Russia. In Siberia a great deal depends upon the part of the country in

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which you are traveling. For instance, lemons for our tea grew steadily higher as we went east, costing sometimes ten cents apiece, even in summer time. And nearly everywhere in Siberia, you will find certain kinds of food unusually cheap and other kinds extremely dear. For this reason it is hard to estimate your expenses for Siberian travel. On the whole, however, they will be even lower than in European Russia.

In traveling overland, your accommodations are always very poor and correspondingly cheap, varying chiefly according to where you are. In general, forty to seventy-five cents a day will cover your expenses (outside, of course, of the posting fare), on an ordinary journey by tarantass.

One of the most comfortable stays we made anywhere in Russia was in Tomsk, Siberia. Here we were in an excellent little travelers' hotel, with clean rooms, good service, cheap rates and a restaurant better in many ways than some of the best we visited in Paris.

To Americans generally, Russia is usually associated with long, hard winters, and no doubt many of us wonder how one can travel in comfort in such severe cold. In truth, however, there is no other country in Europe where winter living and traveling is so comfortable as it is in Russia—unless it be in Norway and Sweden. The Russians encounter extreme cold and very much of it. And hence they have developed to a very high extent the art of keeping warm. Indoors, tight double windows and doors and immense stoves reaching to the ceiling make the temperature always pleasant. Even the peasant's houses are thus made thoroughly comfortable. While outside, warm, heavy furs, which envelope you from head to foot, protect you so completely that the cold is only refreshing and exhilarating.

One of our most pleasant experiences in Russia was an overland trip made in winter. Lying in the thick straw in the tarantass, wrapped in great fur coats reaching to the heavy felt boots on our feet, and with tall collars extending above our fur caps, we were as cosy and warm as we ever were in our lives.

We have been in both Russia and Italy in winter time, and I can say truthfully that in Russia we were always incomparably warmer than we ever were in Italy—or could be.

Traveling in Russia is not a bed of roses. There is much that is bad. The difficulty of the language and the dirt are probably the most disagreeable features. But, on the other hand, there is much in Russian traveling that is extremely good. And on the whole, the good far outweighs the bad. Those to whom economy must be a first object will greatly appreciate the cheapness of a Russian trip. One can go into Russia from western Europe, stay there three months, travel seven thousand miles and return again, all for $200. And there is no one, be he rich or poor, who can find a country in the civilized world where he can see more that is new and strange and interesting and instructive and thoroughly enjoyable than he can in the great Slav Empire.

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A SPORTING EGYPT OF THE NEW WORLD

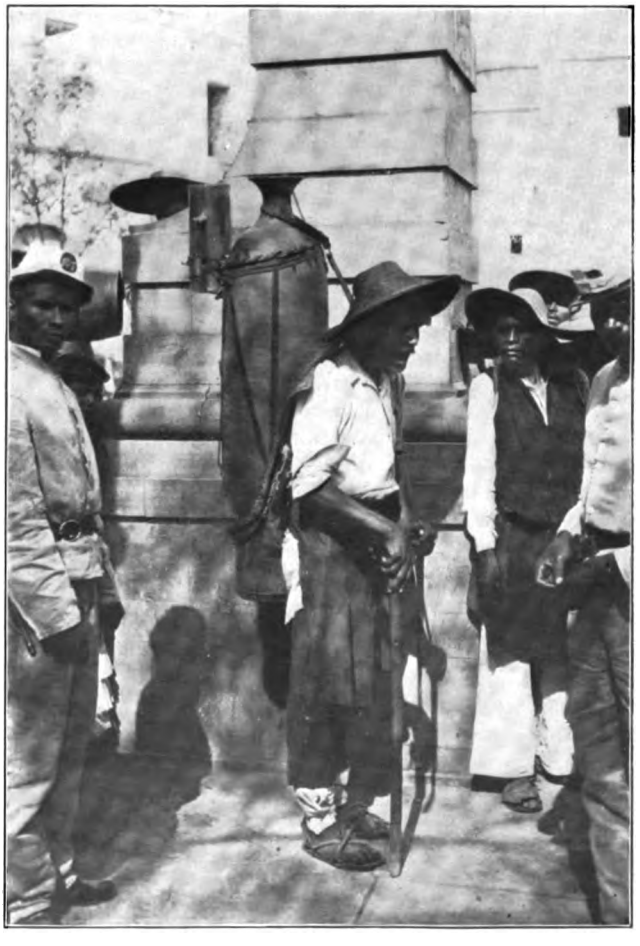
By Annetta Josefa Halliday-Antona

OUR age of steam has begot that end-of-the-century medium of civilization and cultivation, the mania of travel; fast steamers and express trains have annihilated distances, and the quest for novelty leads one from the Orient to the Occident with almost the rapidity of the magic carpet of old.

Fashion modifies fancy, and the southern boundary of our own country, with its prehistoric relics, its magnificent scenery, its tempting climate, and its national life, distinct, peculiar and but little known, has become the Wonderland of the American continent, as well as a most prominent field for observation, discovery and study. A traveler seeking to leave the triteness of a hackneyed civilization has but to wander toward the glowing tropical sun, the warm sea-breezes and the invigorating mountain air of Mexico, that golden land of the Aztecs, nestling among its purple mountains like a jewel in an old king's tomb.

Painters, scientists, artists and literati all find here an open book of nature and humanity, whose pages contain surprising contrasts as well as the key to many enigmatical features of our own culture, illustrated with both alpine and tropic scenery, pine woods, palm groves, mighty mountains, colossal caves, active and extinct volcanoes, gigantic cypresses, bananas and coffee, with fields of cactus, century plants, cane and pepper.

The curious mixture of Spanish and Mexican culture is very marked in some of the church festivals, where many of the Mexican pagan rites are noticeable, such as the sacrifice of eatables, the Indian dances before the temple, and the old worship of mountain caves and of water. And the whole country abounds with the romantic history of Indian legends, a literature unwritten, but sung ever in the hearts of the people.



A CARRIER OF WATER.

The great cornucopia of Mexico, about six times as large as Great Britain, lies almost in the latitude of Egypt and the Sahara Desert in Africa, and of Arabia or Hindostan in Asia; the two long coasts being washed by four waters, the Caribbean Sea,

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Gulf of Mexico, Pacific Ocean and the Gulf of California. The country itself is a real cosmos of vegetation, an immense botanical garden so to speak, where voluptuous growth varies with bare deserts; the redwoods of California and the giant chestnut trees of Sicily have formidable rivals in the eucalyptus and cypress trees covered with Spanish moss and orchids, the sight of which are alone worth the trip to Mexico. The most useful plant in the whole Republic is probably the maguey or century plant, which furnishes fiber, fuel and food, as well as the peculiar wine of the country, pulque. Pulque, by the way, is supposed to be at its best in the City of Mexico, but a foreigner passing by one of the numerous *pulquerias* whose vicinity reveals itself almost a block distant by a most nauseating odor, turns with relief to the pulque fresh-brewed daily, which one meets at the haciendas or great farms, and which tastes like a mixture of yeast and lemonade. Pulque, however, to be candid, is a thin, sour, sad and altogether doubtful means of arriving at a state of exhilaration. The maguey also furnishes gum, needle, thread and vinegar, and is to the native what the cocoa-palm is to the South Sea Islander.

The sportsman finds a second Eden in Mexico, with wildcat, jaguar and wolf hunts, and bears as plentiful as nuts in autumn, while Lake Chapala, the Saratoga of the Republic, fairly swarms with teal ducks and wild geese; and woodcock, plover, pheasant, quail and partridge are as abundant as heart could wish. The angler may select his prey from the shark, sword and cuttlefish of the ocean, to the most delicate sardines of lakes and rivers, while the lake crabs and ocean lobsters are acknowledged almost unequaled. Who that has once tasted the delicious red snapper of the Gulf, the whitefish or trout of the rivers, and the salmon, herring or eel from the Pacific, ever forgets their taste, or the tempting Spanish method of serving them crisply fried or baked in oil well seasoned, garnished with tender, peppery watercress and tiny green limes?

As to the people themselves—those dear, brown, ragged, dirty, lazy Mexicans, whose costumes seem to have been borrowed from Carmen, and whose motto is *manana* (tomorrow)—the fiery imagination of the Castilian has been grafted upon the native gentleness of the Aztec, resulting in a character of great hospitality, formality and benevolence. With Talleyrand, they believe language was invented to conceal thought, while the capacity of the Indians for culture is demonstrated by the celebrated scientists, priests and statesmen who have come from this race, and who, like Juarez and Diàz, have so successfully directed the helm of State. The potters, palm-straw hatters, basket and rope makers, and silver and goldsmiths are all Indians, and nothing can exceed the delicate lace-like patterns of filigree bonbon scoops or sugar tongs or gold souvenir spoons with the Cathedral of the City of Mexico or the Aztec Calendar Stone inimitably carved upon the bowl. The Mexicans as a rule are little speculative and are content with a small and sure business, from which they endeavor to procure as much profit as possible.

There are farms (*haciendas*) in Mexico as extensive as European principalities, too large to be properly managed. In the hot zone the ground is rarely ploughed at all, the laborer boring simply, in the old Aztec style with an iron pointed stick, the necessary holes in the ground into which the seeds are cast. The branding and slaughtering of calves and cattle are the most important events or festivals on a *hacienda*, and are generally celebrated after the rainy season; and upon these great farms the raising of beasts for the bull fights is a Mexican specialty; many play bills reading:

"The bulls for this running were bred at the famous hacienda of Atenco."

Cochineal culture is as old as the history of Mexico. Cortes introduced the silkworm and the mulberry tree, but this industry, like oyster dredging and sponge fishery, is still in its infancy. The Indian pottery is one of the most conspicuous and most beautiful of Mexican manufactures, the soft-baked, grayish, unglazed, fragrant vessels strongly sculptured in rich colors with decorations of silver and gold. They are a delight to the eye; so too is the rare leather work of the Mexican saddles with rich ornamentation of precious metals and furs, the Aztec feather mosaics, the fine tortoise shell work, and the large-brimmed, high-crowned hats or *sombreros*, with cord or tassel of gold or silver, the rims studded with precious jewels, and selling for five hundred dollars in the City of Mexico. And peculiar to the country are the sweetmeats (*dulces*) of milk or sugar, a jam of guava, quince or

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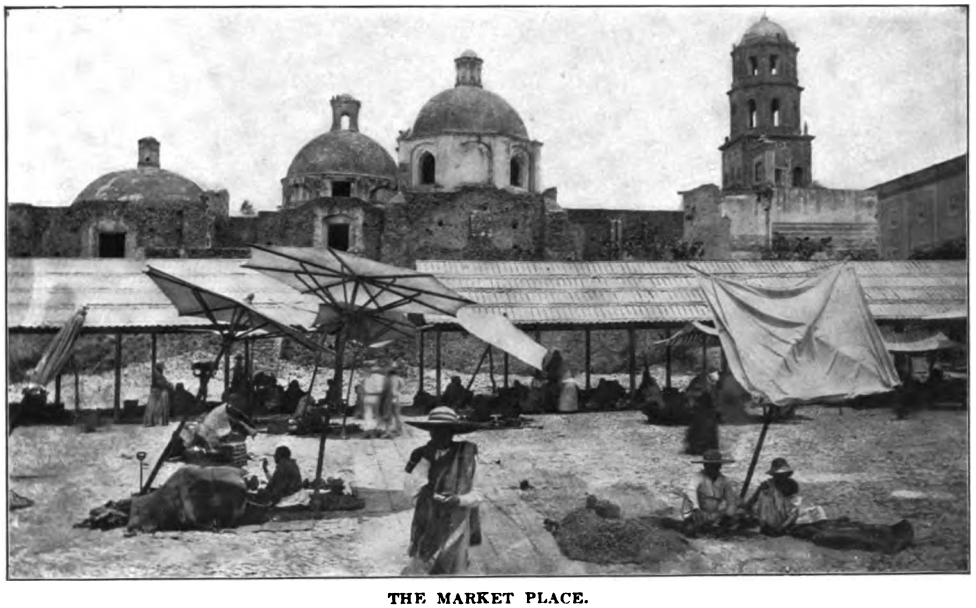
pine-apple, white sweet potatoes, cactus, nougat and calabash.

Mexican towns are but a revival of the Spanish, built after a uniform plan around a large square called the *Plaza de Armas*, which contains the Cathedral and the Government Palace or City Hall, while on two sides range the lines of arcades which are the business center of the city; the Plaza serving often also as market place, fashionable promenade and concert hall. The streets are narrow and straight, and the houses low and flat-roofed on account of earthquakes, the windows of the ground floor being iron-barred, while the upper ones are provided with Romeo and Juliet balconies. Peculiar to every Spanish town are the bull-fight and cock-fight rings, and the corn-bread bakeries, baths and restaurants; the street names are most extravagant, too, in fancy, such as "The Kiss of Two Roosters," the "Hero of Chapultepec," "The Flags of all the Nations," "The Tail of the Red Devil," or "The Full Shoe"; while one shoe shop bears the title of "The Slave of Fashion," and another "The Foot of Fantasy"; a *pulqueria* or saloon is called "The Triumph of Bacchus," and dry goods stores revel in such signs as "The City of Paris," the "Gardener," the "Old Hunter," or "Springtime," while each jewelry shop bears the appellation of a gem, such as "The Emerald," the "Pearl," the "Diamond." A coffin store has the curious name "Perpetual Sleep."

Street life in Mexico presents many picturesque and grotesque scenes, the white garments, the bright *serapes* or blankets, the sandaled feet, the public fountains, the walled highways, the stone balconies, all bearing a strange, a marvelous resemblance to the Far East, until one wonders if he has not mistaken himself and strayed into some corner of the Orient —Damascus or Constantinople—and finds himself turning to look involuntarily for the mosque and the muezzin upon its gallery.



THE MARKET PLACE.

Fruit sellers, water carriers, porters, Mexican gentlemen with silver buttons on their tight trousers and jangling silver spurs, venerable priests, and bare-legged, bronze-skinned beggars dozing in some shaded angle of masonry; tram cars drawn by galloping mules with Indian women smoking stolidly out of the windows, while a special car attached draws coffins or merchandise; caravans of little overloaded donkeys jostling each other in the great Cathedral square, and huge lumbering wagons, form the ensemble of a picture never-to-be-forgotten; while a beautiful flight of birds will perhaps soar up suddenly from some hidden fastness toward the

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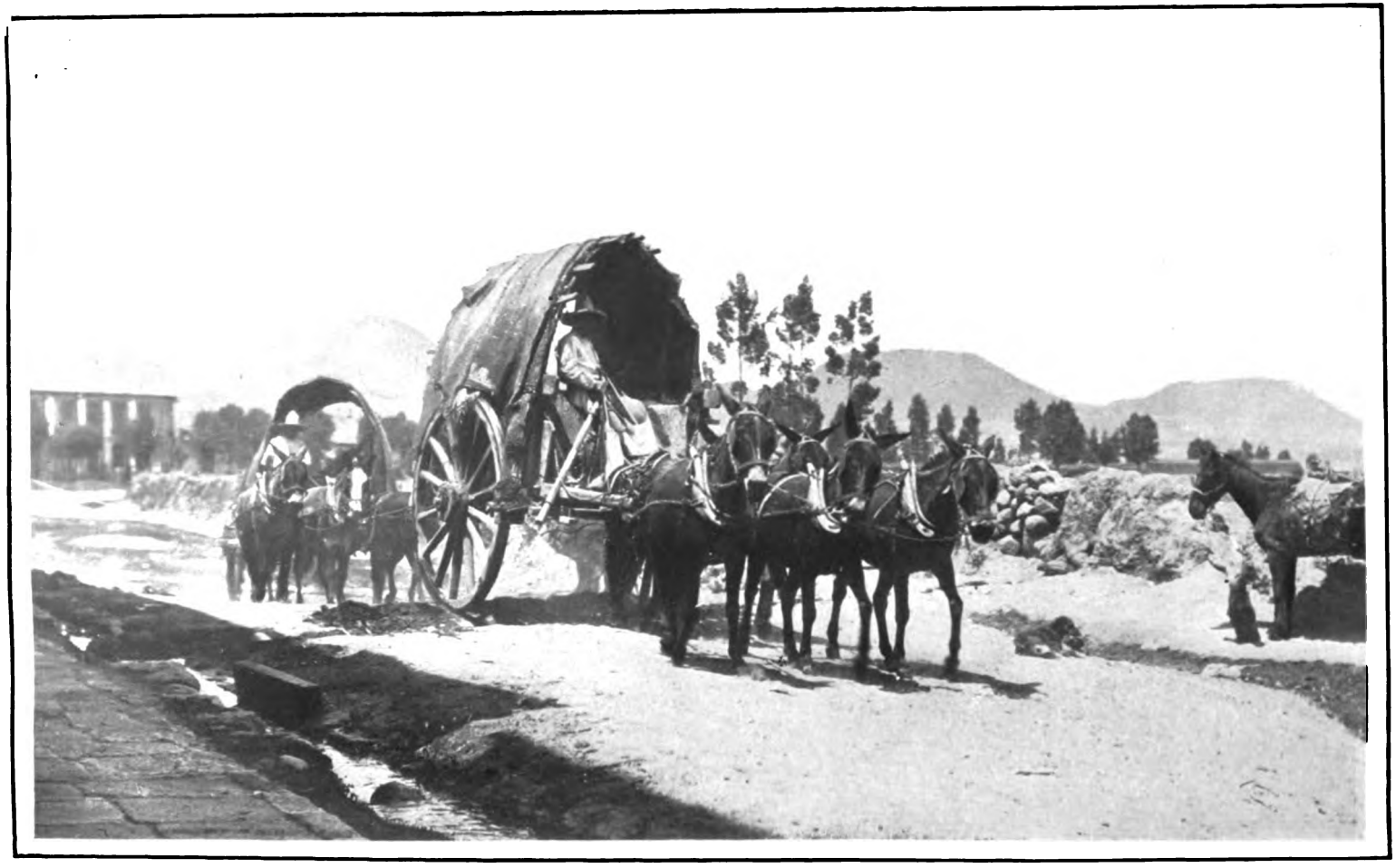

THE CART OF THE COUNTRY ROAD.

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deep azure sky; and the chant of young boys singing in the prison chapel mingles with sharp cries of the street sellers. The piles of pottery in the market of the old bull-ring shine in the sun-rays like rubies, and the softly colored masses of buildings, the climbing streets themselves, and the old church of the Jesuits, with its carvings like finest lace work and its arches of warm pink stone, seem a collection of precious things left unguarded in the open thoroughfares.

In the market place the vendors of frozen waters call their sherbets in quick melodious utterances; sidewalk cooks crouch near curbstones or upon open spaces, their small dishes of *frijoles* (red Mexican beans), crisp *tortillas* or stewed vegetables bubbling noisily in earthenware dishes over small braziers containing a fire of mesquite; fruit sellers wander through the crowd or sit waiting placidly for customers half hidden behind the baskets of apricots, pineapples, peaches, guavas, or mangoes; the orange, lemon and banana stalls are pictures in themselves; so too are the fish sheds with beautiful red and silver fish, and great catfish spread out to tempt the buyer: then comes the lane of old women, toothless and haggish looking, but all with the dower of beautiful eyes which are indeed a drug in the market in this country—they preside over the piles of fresh vegetables, green peas, green artichokes, tomatoes, green peppers, watercress and giant radishes among the celery and endive; after Vegetable Avenue comes the portion devoted to baskets, brooms and mats of palm fiber, mocking-bird cages, medicinal and savory herbs, dried eel skins and sugar cane, which department resolves itself finally into a narrow street of butchers' stalls presided over also by women, who deal out sheep's head, goat's head, tripe or long strings of sausage with dexterity and a nonchalance born of long practice; the floor strewn thick with feathers testifies to the vicinity of the game department; crates of live chickens, turkeys, ducks, geese, pigeons, crowd all available space; beautiful gray doves fraternize with the white bunnies and hares tied up by the legs; broiled frogs displayed on green leaves in a pottery dish are offered for sale at three cents a dozen; *tamales*, or Aztec meat pies, are in great demand, so too are the black olives preserved in oil and the melon seeds every good Mexican housekeeper buys for her favorite parrot; while out by the stone fountain where the pottery and vegetables are washed sit the flower girls surrounded by huge panniers of velvety sweet peas, purple pansies and blue bachelor buttons, pyramids of fragrant heliotrope and scarlet geranium, tangled heaps of roses, crimson and pink, red and white, and great clusters of double purple violets and azure-eyed forget-me-nots looking in their foliage like blue mosaics in green marble. The magnificent color and the rich perfume fill the atmosphere with brilliant beauty; and all this in January and February, when the home circle are shivering around glowing fires, and the outside winter world is cold and pale with frost and snow. One leaves the market place feeling like a page out of Zola's "Markets of Paris," a variety of odors in his nostrils, a variety of scents in his memory, and the voices of persistent sellers, crying babies, crowing roosters and cackling hens following him up the crowded streets.

A forest of spires and towers raising themselves skyward proclaims the wildness of churches in a Mexican town, old churches filled to overflowing with treasures of art, valuable pictures, rich tapestries and bronzes; the exterior of the edifices usually a mixture of Moorish, Italian and Gothic, built of some softly tinted stone, and a façade so exquisitely carved that it is a perpetual feast to the eyes; while the fretted belfry shafts with the ancient bells, the stray window or door hidden away by itself but of the most elaborate workmanship, and the grand old arches through which peeps the sapphire sky, force the observer to feel the truth in that poetic exclamation "Architecture is frozen music!"

In the interior many of the walls are stone carved, with solid silver altar rails and candelabra about the sanctuary. The art objects in the Cathedral of Mexico City are unusually rare and artistic. There are two large holy-water basins and handsome pulpit of onyx, the partitioning of the choir is a finely decorated wall in Renaissance style, the eight green and gold columns of the main altar are of malachite, deliciously cool looking after the fierce tropic sun outside, the choir stalls are of polysander wood, esthetically carved, with gilded reliefs of the Saints; and the church abounds in fine paintings, principally of the Spanish School.

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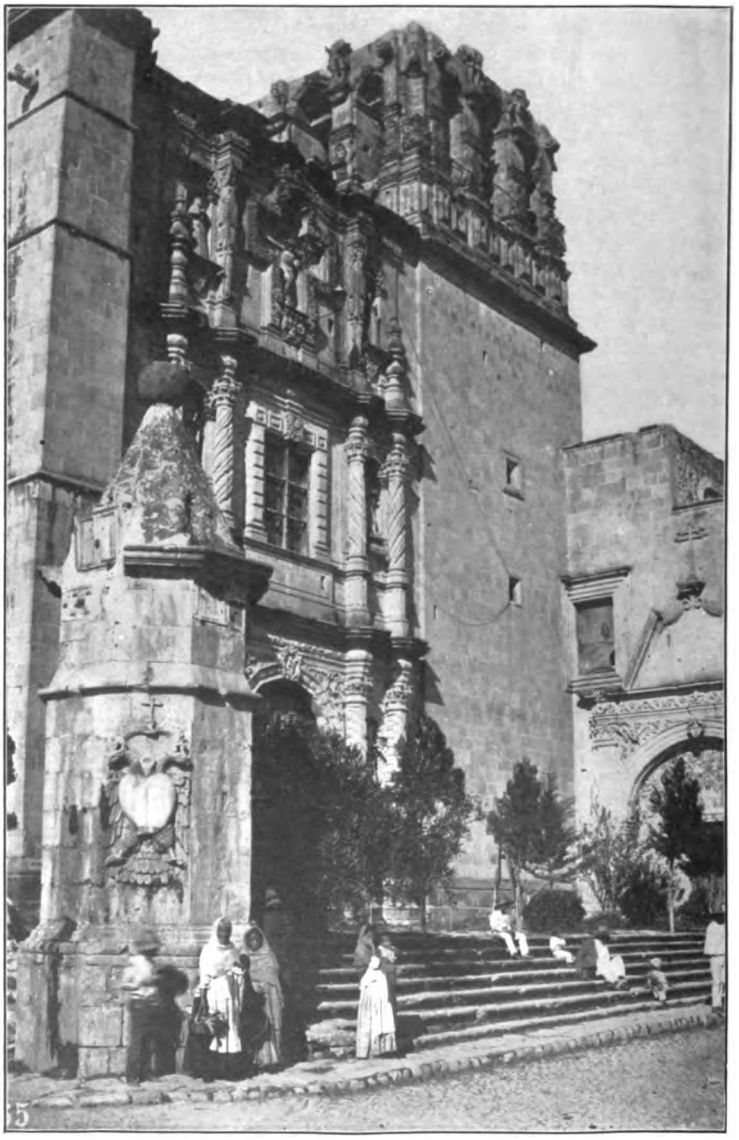
the altar of the Holy Kings being an art gallery in itself.

The largest building in Mexico City, or indeed in Mexico, is the National Palace, built upon the site of Montezuma's residence, in front of which Cortez established a fortress after the Conquest. The most interesting features of the Palace, which covers a square of 590 feet, are the Presidential apartments, which consist of a series of rooms of which the Hall of the Ambassadors, a great salon 200 feet long by 40 wide, is the most important. The Chair of Honor is of gold and crimson with heavy curtains of crimson velvet embroidered with gold, while directly behind it on a background of white embroidered silk are the Mexican arms and eagle on a banner of crimson velvet; the walls are hung with mammoth canvases, the battles of Matamoras and Puebla, and portraits of Mexican patriots and heroes, one indeed of President Diaz himself.

Other rooms are the reception in old blue, the Constitution in yellow like a blot of imprisoned sunshine, the Hidalgo's in cool,



A FACADE SO EXQUISITELY CARVED THAT IT IS A PERPETUAL FEAST TO THE EYES."

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gray tones, the audience chamber in chocolate color and gilt with marquetry panels, and the banquet hall, formerly the dining-room of Maximilian and containing much that belonged to the unfortunate Emperor, notably two exquisitely carved ebony sideboards and beautiful French clock and mirror. This apartment is in russet and gilt. Upstairs are the special toilet and barber shop of the President, a scarlet and white parlor, a commanding room, a regal apartment truly in crimson velvet with the imperial eagle of Maximilian on the walls and a crimson velvet carpet strewn with marguerites; next come the waiting-room with magnificent Persian rugs, cutglass chandeliers and cuspidors of finest Dresden china, a reposing room for the President when weary, in old rose with gold panels, a Bolivar room containing a geographical table whose top represents Mexico and her various military posts, a small archive chamber with a most beautiful view of distant amethystine mountains whose rifted sides are stained with mineral dyes, and lastly the State bed chambers in royal blue with panels of lapislazuli and furniture of rosewood. These rooms are the winter apartments of the Presidential family, which are abandoned early in May for the summer quarters out at Chapultepec with its fine old cypress wood and Spanish moss, and its grand outlook over the Valley of Mexico, which celebrated world wanderers have pronounced as unsurpassed in beauty.

For centuries it has been the heart of the country, this broad valley, with its curious Aztec ruins, its glistening lakes and swampy meadows the home of thousands of water birds, its idyllic haciendas, old church towers and gaily colored domes, its flower-studded fields and white alkali deserts, and the bare brown lava beds and mighty outlines of the two snow-covered volcanoes, those silent sentinels that keep perpetual watch and ward over the valley. As one gazes long and admiringly upon it all, spiritual strength weakens before material force, legends come before the mind of the light barks of the Aztecs floating down the shining water in the dawn, toward the Venice-like City of Old Mexico, with the flower-crowned crew chanting hymns to the God of the Sun; and perhaps a faint understanding of what that far-off, shadowy age meant comes to one as he turns away, filled with fancies sweet and subtle as the perfume of faded flowers.

At Tacubaya, the fashionable suburb of the capital, the great garden at the country residence of the President's married daughter is worthy of mention. It is surrounded by high stone walls, except the portion in front of the villa, which is enclosed by an iron fence, imitation of the antique. Huge trees of geraniums in one angle form what is known as Geranium Corner, a blaze of scarlet, while a serpentine canal, winding ribbon-like through the park, is crossed by rustic bridges here and there. The canal terminates around a small island upon which is constructed a very beautiful summer house, with a thick hedge of Easter and yellow lilies growing to the water around it. The soft pure white of the small pavilion, framed in by the brilliant green foliage, makes the name "Lily Rest" most appropriate. There is a wilderness of acacia trees like the Forest of Arden, mingled with evergreen, laurel, camphor and pine, while here and there a palm raises its dreamy head to heaven, or a weeping willow shakes its branches over a solitary fountain or rustic summer house which springs up in some unexpected place. There are thickets of roses and sweet peas and great maguey plants with crimson geraniums clustering about their uncouth leaves; a palm tree called "Pansy Palm" is planted protectingly in a huge bed of pansies, yellow, purple and white, tall eucalyptus trees with blue star flowers and purple iris peeping out at one around the base, and huge beds of white carnations, bordered by a fire of ruby geraniums and green moss, which prettily carry out the idea of the Mexican colors. One portion is known as Grapevine Gallery, the exterior outlined by immense trees of double fuchsias, an arbor completely covered with white roses is called "White Rose Shelter," another with blue morning glories rioting over its trellises is named "Morning Glory Arbor," while a third small one shaped very much like a sunbonnet is one mass of fragrant heliotrope and bears the title of "Heliotrope Home."

Climbing the steep banks of myrtle among the violet-bordered paths may be spied a small private chapel covered with Spanish moss and surrounded by begonias and bushes of the vermilion cigarette plant sheltered by a projection in the wall; and near to it a meteorological pavilion containing thermometer, barometer and other such instruments. Carriage drives and foot paths

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penetrate everywhere, tall banana fronds waver in the breeze, there is a strong odor of white jasmine on the air; and through the high, slender brown tree trunks the afternoon shadows lengthen, and the song of the mocking-birds among the roses grows less noisy, while half hidden among the peach trees and dragon flowers, a fine private chapel in modern Greek style is erected. It is much like the Pantheon Agrippa of Rome, the only inharmonious feature being the two modern bell and clock towers. Some very fine bronze sculptured animals are dispersed throughout the vast park, and a Roman arch, hidden and covered with odorous pink and yellow honeysuckle, leads to the hothouses and stables away out of sight. Wandering past a large rockery, green with tropical ferns, one comes suddenly upon a Pompeian bath, a great circular stone tub open to the sky, surrounded by high walls which are a mass of trumpet flower vines where a brown lizard hastily scrambles out of sight as an intruder approaches. Annunciation lilies cluster around the edge of the bath and looking twice one sees a statue nearly hidden by the luxuriance of the vines. One portion of the garden is devoted to gymnastics, swings, bars and trapeze, and another to a gas plant which furnishes light for the grounds at night. One entrance is a handsome Roman arch, over which the blue plumajo buds clamber, and the beds themselves are veritable islands of flowers. The great garden is unspeakably beautiful and unsurpassably lovely, the whole atmosphere drowsy with bloom and fragrance: but for great work, for study, one is the more convinced of the superiority of our own climate, impish though it often is.

Standing in this garden at moonlight, the white radiance converts the tropical foliage into something unearthly; the snow-covered volcano looks like molten silver, a long line of wavering red flame, 3,000 feet up the mountain, tells of forest fires, and the home-lights straggle out upon the hill sides, and disappear like fireflies.

Beautiful Mexico, picturesque and pathetic! Rich in resources and poor in opportunities! A strange mixture of repulsiveness and fascination, unthrift and industry, of sweetness and impurity, of poverty and of wealth, a country of contrasts, a nation still in the infancy of progress!

And yet to him who desires a Mexican holiday may be ventured the counsel to take it by all means before improvement has stepped in to civilize and to spoil, and to destroy that romance of the Middle Ages one finds in Old Mexico to-day.

GRAND CANAL OF LA VEGA.

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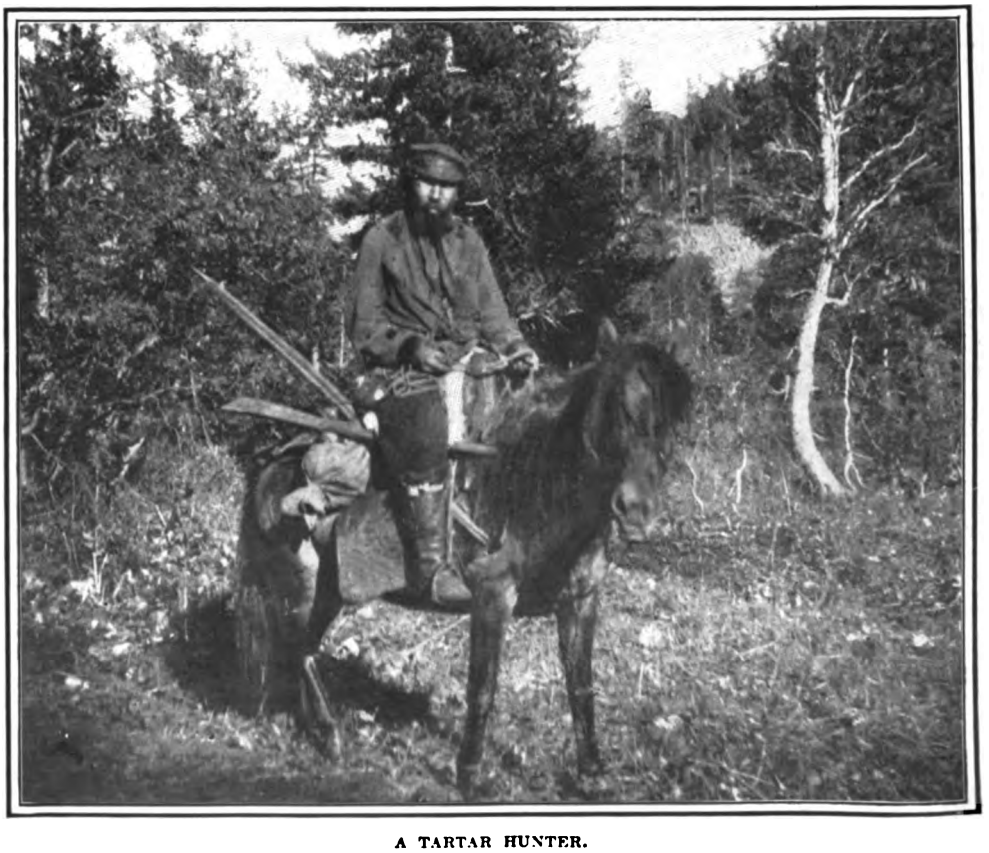
HUNTING AND FISHING IN THE ALTAI MOUNTAINS

WHERE BIG GAME IS PLENTIFUL AND UNPROTECTED

By Chester Wells Purington

NO living species of elk attains to such a size, or possesses so great a spread of antlers, as that found in the Altai mountains of Siberia and northern Mongolia. During the course of a hunting trip in southern Siberia in the summer of 1900, I paid visits at the houses of many prominent Siberians, and almost without exception, magnificent sets of antlers formed a conspicuous feature in their decoration. I carefully measured several sets of antlers, and found that, while several of them measured between six and seven feet from tip to tip, a spread of seven, or even eight feet was considered nothing extraordinary. Hunting the elk, or "maral" as it is called, is the favorite sport of the Siberian landed proprietors, and right royal is the welcome they extend to a guest during the season—September and the early part of October.

The Mongol Tartars, a semi-wild people inhabiting the mountain country on the border between Siberia and Mongolia, are very familiar with the habits of the maral, and are consequently almost invariably employed by the Siberian noblemen as guides. They resemble very much the North American Indians in facial appearance, and possess an equal amount of ability in trail-finding and general woodcraft. The Tartar horses are used almost alto-



A TARTAR HUNTER.

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gether in hunting, as they are sure of foot in the difficult passes of the Altai mountains. The regular price for hiring the services of a guide is fifty-two cents, or one Russian rouble a day. The same price is asked for each horse of a pack-train, whether there be few or many horses. It is a custom for the head Tartar to supply the outfit with one man for each three or four horses taken, the only charge for the service being the condition that the employer furnish the men with dried black bread.

Reared as they are in a country abounding in game, the Siberians are excellent shots, and possess armories of the most improved makes of rifles and shotguns. Mr. C. I. Ivanitsky, a gentleman owning large estates and mines on the border of the Altai, kindly allowed our party, during the course of a visit at his place, to inspect his collection of firearms, and it is, without exception, one of the finest collections it has been my lot to see, containing several famous pieces of English and Belgian work-

AS WE JOURNEYED TO THE ALTAI MOUNTAINS.

The Tartars are very clever in calling elk, for which purpose they fashion a long slender horn of wood, much the shape and size of a clarinet, and fancifully carved with considerable skill. No reed or other sound contrivance is fixed in the horn, but the elk call is imitated to perfection by the drawing in of the breath through the horn. The Tartars do much hunting on their own account, and are invariably armed on their trips through the mountains; their weapons being generally muzzle-loading rifles of antique pattern.

manship, of which no duplicates exist. Mr. Ivanitsky also exhibited, with becoming modesty, silver and gold cups and other prizes, both for marksmanship and pigeon-shooting, awarded him not only at Russian meets, but in some of the most important contests held in the cities of western Europe.

Bear-hunting is perhaps a more favorite sport with Siberian sportsmen than that of calling elk. The Siberian brown bear is much larger than any bear in the United States except the grizzly. The large one shown in the photograph measured nine

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feet six inches in length. Bears are very numerous along the Yenesei River, and as the peasants do not hunt them to any extent they become very bold, and annoy the farmers by carrying off sheep and cattle from the fields bordering the rive . They are shy of men, and in order to hunt them systematic preparations must be made, and a trip of several days' duration undertaken.

Among the Tartar and Siberian peasant hunters it is customary to use, in addition to a rifle, an auxiliary weapon in hunting the bear. This consists of a pole, made of a stout sapling, about eight feet in length, and three inches in diameter. To the end of this is firmly bound with raw-hide thongs, a double-bladed dagger, eighteen inches in length, and four in breadth. This is made of the finest Ural steel, and possesses a cross-piece, also of steel, thirteen inches from its pointed end. The manner of using this weapon, after the bear has received the single charge from the rifle of the hunter, is as follows The hunter places his foot firmly in advance on the ground, rests the unshod end of the spear against it, waits for the enraged and wounded bear to charge, and watching his opportunity, impales him, so to speak, by shoving the dagger down his throat. The bear, thus rendered helpless, is soon put to death.

RESULT OF OUR HUNT FOR THE BROWN BEAR OF THE ALTAI.

The mountain sheep, so highly prized as a game animal on the Western Continent, is perhaps the noblest of the animals which the Altai has to offer the sportsman. It is also, curiously enough, unprotected, and yet found in greater plenty than any of the other large animals, except possibly the bear. The sheep are found for the most part along the high ridge which forms the boundary between Siberia and China, and

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are especially numerous in the valleys at the head of the river Ooss, one of the tributaries of the Yenesei, near the Mongolian border. Mr. E. Demidoff, in a recently published book entitled *After Wild Sheep in the Altai and Mongolia*, gives the dimensions of one pair of horns obtained by him as fifty-two inches along the curve, nineteen inches girth, and thirty-nine inches from tip to tip.* I was not fortunate enough to get into the part of the country inhabited by the big mountain sheep, but succeeded in getting a photograph of a pair, which had recently been brought into the town of Minusinsk.

A practically virgin field for tiger hunters remains in the southern Altai, more especially in Mongolia, and also in Manchuria. The Siberian tiger, as he is called, is occasionally found as far north as the borders of the Amoor River. These animals are fully the equal of the Bengal tiger in size and strength,† and more formidable adversaries on account of the heavy coat of fur which they carry. While the skin of the Bengal tiger offers practically no resistance to a rifle-bullet, that of the Siberian and Manchurian tiger is as thick and tough as that of a bear. In Manchuria the tigers are said to be exceedingly aggressive, and are known to attack villages when driven with hunger.

Game of the smaller sorts, such as beaver, sable, hares, otter, etc., and wild birds, including the blackcock, pheasant, wild turkey, grouse, partridge, and a bird not known in America, called a "rapchik," is exceedingly common in Siberia. Many species of ducks, including vast quantities of canvasbacks; and wild geese are to be seen along the Yenesei River and its tributaries, literally in clouds. So plenty are game birds of every sort that during the fall and winter all hotels and railway dining-cars and restaurants are bountifully supplied with them, so that the traveler, if he so wishes, feasts on a continual round of game, at a cost which is ridiculously low.

The fish known as the grayling, rather uncommon‡ in the United States, but well known in England as a game fish, is a denizen of all Siberian mountain streams. This fish ranges from the size of a minnow up to four pounds in weight, and during the summer takes the fly readily. Good sport may be had in almost any of the countless valleys of the Altai mountain region, excepting where the streams come directly from the melting snows, and are too cold for the fish.

A game fish, which, so far as I know, is unknown in America, runs in the northern waters of the Yenesei River, and does not inhabit the smaller streams. This is the "timain," a gigantic species of salmon, which is known to take a fly or live bait. When properly hunted this fish will rival the tarpon for sport. Timain have been taken, in nets, weighing ten Russian poods, or three hundred and sixty pounds. Strange to say, the Siberians of the leisure class, although devoted to hunting, are almost unacquainted with the sport of fishing as known to us. Therefore it is only through the Englishmen or Americans who penetrate the country that these northern game fish become known. For the fisherman who is willing to go to the expense and necessary trouble, it is doubtful if the waters of the world can offer a more noble antagonist than this fish.

Regulations regarding the hunting of game in Siberia are exceedingly few, except in the parks of the Altai, which are the private property of the Russian Emperor. As the territory so defined is but a small portion of the vast area of southern Siberia, there is plenty of room for those who wish to hunt elk in any of its haunts. In regard to the hosts of mountain sheep, mountain goats, reindeer, deer, bear, and caribou which roam the vast forests and steppes, there is not, so far as I know, a single restriction placed on the hunting of them. One almost regrets the building of the great railway which brings this hitherto primitive country within a few days' easy journey of London.

* The record head of the *Ovis ammon*, as this great sheep is scientifically called, shot on the same trip by Mr. St. George Littledale, measured, length 63 inches; girth, 19½ inches; from tip to tip, 41½ inches. The record Marco Polo's sheep (*Ovis poli*) is, length 75 inches; girth, 16; tip to tip, 54½. The record Big Horn (*Ovis canadensis*) is, length 42½; girth, 16¼; tip to tip, 25¾.—Editor

† They are, however, neither so agile nor so aggressive as the southern tiger.—Editor.

‡And growing more so daily.—Editor.

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From the painting of Andrea Mantegna.

THE FAMED WRESTLING MATCH OF MYTHOLOGY

IT is said that on his journey through Libya, while on his quest for the golden apples guarded by the Hesperides, Hercules was challenged to a wrestling match by Antæus, a powerful son of Terra, the Earth, of monstrous height and strength. Whenever he came in contact with his mother, the Earth, he received renewed strength, and Hercules finally won the bout after a long struggle, only by lifting him bodily and strangling him to death in mid-air by the crushing embrace of his mighty arms. This incident furnished Andrea Mantegna with the subject of his picture. The artist has chosen the moment before the muscles relax in death and has attempted to show the face of a man at the point of suffocation. The muscles of the arms, chest and neck are strained and swollen, and the head is thrown back in the mad effort to get air into the lungs. He has shown the gasping mouth of breathlessness with its haggard cheek, and down drawn lip. The approaching end is seen in the eye which begins to turn up under the lid, always a sign of death. Next moment the muscles will relax, the eyes will close, the lines of the face will disappear and unconsciousness will replace the spasmodic effort that now convulses the body.

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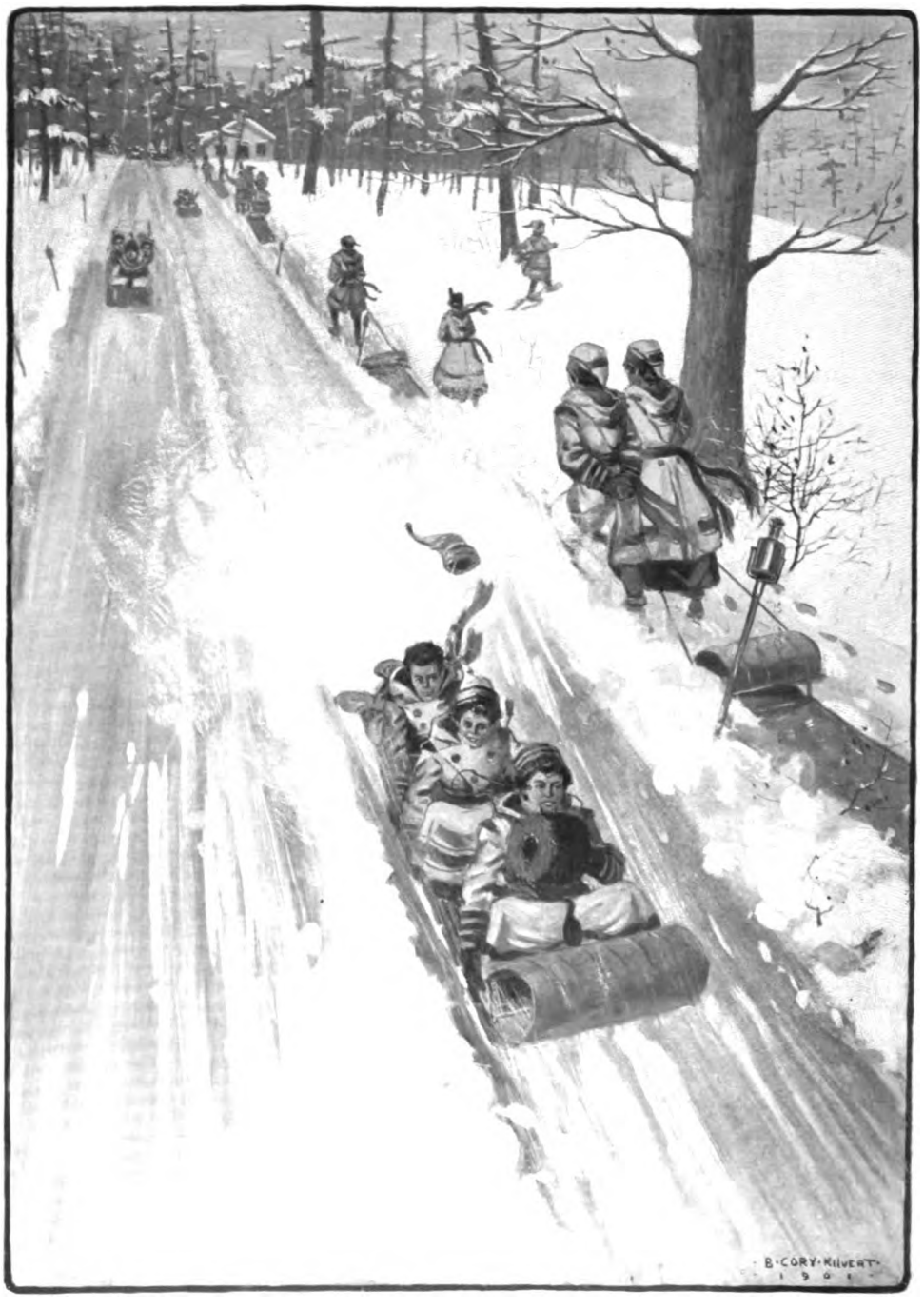

"THE SPARKLING WHITE WORLD, THE GREEN FIR GROVES, THE ROCKS, THE FARMHOUSES, RUSH UP TO MEET THEM; AND BREATHS ARE RAUGHT AWAY BY THE WIND OF THE DESCENT."

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THE RIDING OF THE ICE HILLS

WHERE there are steep slopes, and snow, and a boy, there the eternal forces of the world will presently set themselves to evolve some more or less crude form of tobogganing. The evolution is not carried very far, however, until a woman begins to busy herself in the procedures. When she touches it, the clumsy little pastime suddenly grows up. It becomes a social institution, one of our very serious amusements.

In Canada fun is counted not a luxury, but a necessity. It is not strange, then, that Canadians were the first to realize the full possibilities of tobogganing as a recreation, and to make of it a serious business—as even teas and tiddledywinks are liable to become in the hands of a strenuous race. Clubs were organized, capital invested, elaborate and costly slides or chutes were built; and mittened youngsters admired the way the grown-ups had stolen their game. The school-boy play had become the concern of viceroys.

Having thus taken by storm the society of the North, the breathless and perilous pastime spread south to such centers as could boast a winter emphatic enough, and hearts sufficiently audacious. In Europe, where Alps and Tyrol and soaring roadway offered slides in profusion ready to hand, the native hand-sled was seized upon, and the evolution of the sport followed somewhat different lines. The element of competition rather took the place of the social element. There was a struggle for speed records, and there was a tendency to introduce such difficulties, in the way of curves and obstacles as would shut out all but the most daring experts. The Canadian term "tobogganing" has been rather loosely applied to this European form of the sport, which is really a development of sledding, or coasting.

In America, though every school-house on a wintry hill has nourished generation after generation of rosy coasters, the sport in its higher development has pursued the lines laid down in Canada. For winter after winter the American school-girl on the ill-steered bob-sled has been tumbled shrinking into wayside snowbanks, to emerge with powdered locks and eyes like stars. For winter after winter the American school-boy, riding "belly-gutter" on his heavy little steel-framed "pig-sticker," has hurled himself headlong down the steep highways, to the perennial consternation of the wayfarer. Then came the dusky enchantress from Canada. The hand-sled was common; but here was a half-wild aristocrat. With the toboggan, as it appeared in America, went clubs, and cost, and exclusiveness; and the opportunity was recognized wherever winter society was vigorous and venturesome. The speed record, however, on the straight chute of the Canadian type remained with the well-known Montreal slide, where a distance of nine hundred yards has been traveled in thirty seconds.

When the little Indian boy, seating himself in a roll of birch bark and tucking his toes under the obstinately curling edge, went sliding blithely down the radiant slopes of his winter-crusted hills, the birth of the first Canadian toboggan was near at hand. The flat, smooth, broad surface of the bark not only rode the hard crust, but skimmed lightly as a bird over the soft snows collected in the hollows. The hand-sled, with its cutting runners, is the child of the traveled road; but the Canadian toboggan is born of the untracked spaces of deep snow. The possibilities of the child's roll of birch bark were obvious to the weary squaw, compelled to drag a load of moose meat to the wigwam. The curled edge of the bark prevented the load from catching in chance obstacles, the flat bottom kept it from sinking into the snow. But the bark was frail. The stately warrior in the wigwam noted with interest how the roll of birch bark increased the usefulness of his wife. He took the idea in hand and pondered over it. It was plain that a thin slab of wood would be better than a sheet of birch bark; but it must be made to curl at one end, as the bark would do of its own accord at both. So he fashioned the slab of wood long and thin, bent up one end while it was green, and fastened the roll in place with stout thongs of deer hide; the bottom he left to be smoothed by use till the surface should become like glass. Later, he added rails along the side for the

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better securing of burdens. And thus, in vastly increasing the usefulness of his squaw, the red warrior of the forgotten past was making amends to the sex by providing a joyous diversion for the paleface daughters of the future.

Evolved for toil, but having its origin in youth and mirth, the toboggan could never quite forget its gay inception and its rightful heritage of laughter. Broad and light, it goes on wings rather than on feet. It floats, or glides, or flies, or swoops, but is ill at ease in never running. Born of the wild, white birch, it never grows unmindful of its free ancestry. Submitting heavily, when it must, to the yoke of labor, its beauty and its charm are only revealed at play. Like its cousin, the canoe, that other fairy offspring of the birch tree, which is to the summer waters what the toboggan is to the winter hills, it does not give its best to man till invited to minister to his pleasures, rather than to his needs. And, like the canoe, too, however sophisticated and elaborated, it never quite casts off its savage grace, and never fails to turn its enamoured conquerors some few steps along the trail that leads back to nature's heart. Though the slides be built by hand in palace grounds, glared upon by electric lights, and blared upon by bugles and trumpets of brass, the company that steps from the drawing-rooms to the chutes goes suddenly back through a mysterious breadth of time to a ruder and simpler dress, to more native manners, to a more childlike and self-forgetful mirth.

The best Canadian toboggan of to-day is the old Indian form, perfected, rather than modified. A single flat sheet of wood, about a foot and a half in width, and from three feet to six or seven in length, is finished in front by a graceful roll or upturned end, called the hood. This hood, as of old, is kept in shape by thongs. A well-padded cushion (to be appreciated when soaring over bumps) runs the whole length; and light, strong handrails afford a grip by which toboggan and crew are enabled to keep together throughout the flight. The most expensive machines are built not in one piece, but of narrow, longitudinal strips of selected wood, fitted and glued and screwed together to give the utmost of strength and of security from warping. Racing machines are polished on the bottom to a hardness and finish like that of choice mahogany; and sometimes there is the very incongruous addition of broad steel shoes, about an inch in depth, which add greatly to the speed on an artificial slide. The woods preferred for the making of these toboggans are beech, birch, and hickory; and after these, elm.

While the toboggan itself has been evolved to perfection, tobogganing, I cannot but think, has been evolved past the point of perfection. On the straight, artificial chutes—sets of parallel, perfectly iced gutters, as it were, some two and a half feet wide, so fenced with planking and ice that steering ceases to be of vital importance—some of the best and most fascinating elements of the sport are eliminated. One chute may differ from another in the breathless precipitousness of the drop, in the violence of the jump; and when the steep descent is past, there may be safe and guarded curves—as at the far-famed old Tuque Bleue slide of Montreal, with its concluding horse-shoe curve, bringing the rider part way back toward the starting point. But thronged as these slides are by a heedless and laughing crowd of merrymakers, of every varying degree of skill, yet of unvarying enthusiasm and confidence, the chances of accident must be reduced to a minimum, and the expert finds himself on much the same terms as the tyro. Not skill, but merely courage, to face the dizzy and desperate swoop, is really all that is required; and the comparative novice loading his toboggan to the limit with rosy and trusting dames, may dare the wild descent. It is possible for even so thrilling a venture as the emulation of a thunderbolt to grow monotonous at last, when repeated indefinitely in one fashion, with little chance for individual prowess to score any conspicuous triumph. And the possibilities of the tête-à-tête are more or less restricted during the descent, as it is given to few besides the eagles to woo upon the wing. To be sure, there is the walk back; but that is not of the essence of tobogganing on the chutes, and may, indeed, be done away with by some superfluous modern convenience.

It is at the stage before the last, in my judgment, that tobogganing reaches its best development. Not the riding of the chutes, but the riding of the open hills it is that marks the acme of this delirious pastime. The ideal toboggan club is the peripatetic toboggan club, which changes its locale as the whim of winter may chance to change the white vesture of the steeps.

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Sometimes the course will be down the abrupt face of some high river bluff, and out across the glimmering empty spaces of the ice. Sometimes it will be laid down upon the precipitous front of a hill, where in summer the high pasturing sheep can scarcely find a footing. Sometimes, as the condition of the snow-crust may dictate, it will be less steep and swift, but longer, more changing, more complicated, and will follow the broken slopes of the lower upland fields, with here and there a gate to be dashed through, here and there a tricky corner to be made, here and there a rock or thicket to be shunned. This is a sport wherein skill and daring count to the uttermost, and where the tyro is left behind. This is what really evokes the wild, elusive spirit of the toboggan, the child of the snowy steep. There is mad speed, there is doubtful, solicitous sliding over the long level, or the slight ascent that leads to the next decline and calls for the husbanding of every inch of impetus. There is ample peril to spice delight at more than one critical point, where false steering or lack of nerve would lead to disaster. Skill, daring, and decision, all are sure to be needed before the foot of the long descent is reached, and the toboggan slows to a rest on the spacious levels.

The ideal arrangement for such rough-country tobogganing is, perhaps, a party of four to the toboggan, which means weight enough to secure a lasting impetus for the slow places on the slide. Two of the four, of course, will be women. One man sits in front, his feet under the hood; then the two girls, expectant and deliciously half afraid; and on the rear of the cushion the steersman crouched sidewise on one bent leg, the other leg stretched out behind him as a rudder. He steers with his toe or with the whole side of his foot, as the case may require; and on him the whole adventure hangs. High up the steep he pushes off. The girls cry out with excitement. The sparkling white world, the green fir groves, the rocks, the farmhouses, rush up to meet them; and breaths are caught away by the wind of the descent. A little pocket of loose snow is crossed—a white spray spurts into the air—and the man sitting in front has proved his usefulness as a shield. Hearts sink for an instant as a great rock rises suddenly in the path, and is avoided by a hair's-breadth. The toboggan darts through an open gate. Then the pace slackens gradually in crossing a space of flat meadow; but the steersman has calculated his forces, and the toboggan is still slowly moving as it dips over the brow of the next decline, and once more hurls itself forward on another and a madder rush. The periods of slowing up are of incalculable value, giving time to realize one's emotions and fairly test the ecstasy. Compared to this long-drawn-out delight, the circumscribed excitement of the artificial chutes is maimed and tame.

At night, under a clear moon, the course of the open hills has an added sorcery. If there is no moon, then a shorter and less varied course is chosen, and marked out along the decline by torches stuck in the snow. Out upon the shadowy levels, at the foot, the torches are apt to be omitted, and toboggan after toboggan, as it sweeps with shouting and laughter down the lighted steeps, steers aside silently into the starry gloom, and gives its neighbors the widest berth it can. The joy of life and the mystery of life meet under the night; and only to them who have tasted its enchantment in this form has the magic of the toboggan been revealed.

One word, in conclusion, as to the status of the sport to-day. Some five or six years ago the sport, as a popular institution, had fallen out of favor in Canada. The chutes were forsaken. In Montreal, the foster-mother of the toboggan, the game was all but forgotten. There was hardly a toboggan to be found on sale, and even more difficult to find was a purchaser for a toboggan. But now, after this period of eclipse, the wild star of the hooded and sliding hickory is rising again over the icy hills. Four important clubs are in full swing in or about Montreal; and there is a slide at Quebec. In rising thus with strength renewed to take hold upon the enthusiasm of a new generation, the Red man's toboggan has given proof that its youth and its fascination are perennial.

In the United States, for the greater part, the winter is too uncertain for tobogganing; there once were club and public slides at St. Paul—at the time when the tobogganing fever was at its height—and there were club slides at several places near New York, but the Canadian environment seems needed to keep the sport at its best.

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THE FOX IN FACT AND FABLE

By Lynn Tew Sprague

IT is now a half century since the theory of evolution, of itself centuries old, received from the great Darwin a fortifying exposition, a logical and sustaining hypothesis which is all but a demonstration, and so became a doctrine of leading scientific minds. Though to this day its real significance and value is neither comprehended nor appreciated, even by the majority of educated people, nevertheless it has come at last to influence the thought and the feeling of us all. The teachings of the masters of science have unconsciously moulded our beliefs, and the new and growing interest in nature study, though still highly colored by the old sentiment and idealism, now rests securely upon a scientific basis. In very recent years—one might almost say months—the new thought and the new feeling has been particularly traceable in all that has been written and printed concerning the life of our wild animals. "Wide as the difference is between the mind of a brute, we must remember that the question is now one not as to degree but as to kind," wrote Romanes, the very highest scientific authority on animal intelligence, "and therefore that our task as serious inquirers after truth is calmly and honestly to examine the character of that difference." It is felt at last that the beasts of the field and the birds of the air were not especially created for the slavish use and the merciless sport of man, but that they are in very fact kindred creatures with us; that they are endowed with similar if inferior capacities and propensities; that they can suffer and rejoice mentally, can teach lessons in the sweet virtues of patience, forgiveness and faithfulness, and that they even have rights not to be transgressed without real peril to ourselves. All this it is fitting and proper to bear in mind when we turn to the study of the fox. This genus of animal, by reason of its cunning, strategy and finesse, is the hero of so many legends, the central figure of so many myths illustrative of purely human traits, that on the psychological side, so to speak, it has a peculiar interest among animals. It will be found, indeed, upon close scientific inquiry that it does not deserve to play the part of sage among them. In general intelligence it is not the king of animals. It has survived in many places where equally shrewd and vigilant wild creatures have been extirpated, chiefly because of its comparatively small size, great cowardice, prolificness, and the fact of its not engaging the active hunt of mankind when more dangerous beasts are at hand. It is inferior in discernment, judgment and general sagacity to certain other animals of the same order, such as dogs and wolves, and to many of other orders, such as elephants, monkeys, the anthropoid apes, etc. Nevertheless, it is widely distributed, and its place among animals of general familiarity is very high in the intellectual scale; and so it has come to be regarded as the Solon of the folk lore of more than one race; and to those interested in wild life a glimpse of this adroit and clever creature as it figures in the literature of fact and fancy cannot be other than profitable.

II.

John Fisk has told us in his philosophical study of myths and myth-makers how persistently the same tale under different forms will reappear in the folk lore of different branches of the same race. I have attempted to show in a previous number of this magazine that etymological research does not always successfully trace back into ancient times all the legends of the wolf and that the similarity of incident in certain of the tales is beyond doubt largely accidental, and not necessarily the result of a common derivation. That the same is true of the fox is proven by the great similarity of his adventures in the folk lore of wholly different races. Among different peoples, legends of the same animal naturally more or less resemble each other, and the subtlety of the fox has won for him a conspicuous place in the myths of all lands where he abounded. But each division of a race does inherit the tradition of the parent stock, and so research in folk lore has solved many philological and ethnological riddles.

Now we are told by one authority that

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the very oldest of all animal stories, common in the middle ages, was that of Reynard, the fox; and by another very high authority that "the story of Reynard, the fox, is one of the most important mediæval contributions to the literature of the world, and is the source from which many subsequent writers have drawn the themes of their fables." It will be worth while, then, to look at the nature of this old tale. In epic form Reynard's adventures were current throughout Europe, and the roots of the legend are traceable far back into the Aryan speech. However much his sins and troubles may vary, vulpes, reineka or Reynard is sagacious, wily, adroit, shy, wicked, and, alas! successful, in all these rythmic tales.

The great Goethe has retold them in classic German, and they have been the theme of distinguished modern writers.

Now an incident common to most of these old myths and legends concerning the fox is the trial for his many misdeeds. The animals of the forest and the field come together to ascertain his guilt and fix his doom. All of them have tales to tell of his crimes and their wrongs. The lion presides. The wolf relates how the fox has put out the eyes of his children and time and again played tricks upon his wife. The rabbit, how he has even eaten his offspring. Even the dog complains of having been many times cheated of his dinner. Under a courtly mien the fox always figures as a rascal, a cheat, a robber, or a murderer. The trial is stirring. At last the badger, the fox's nephew, speaks in behalf of the sinner. He shows how his uncle, the fox, has many times used his brains for the benefit of his brothers of the forest. He especially charges the wolf with being an ingrate and villain, and tells how once the fox by agreement with the wolf had feigned death in the road on the approach of a fish dealer and his cart, knowing that the carter would pick him up and carry him away on his load, on account of his valuable fur. But when the deceived truckman turned his back the fox craftily threw out the fish, one by one, and then leaped out himself to find that his greedy partner, the wolf, had eaten all the booty, and left him only the bones. Other unfair treatment the badger tells of. The fox had often schemed and planned to cheat the peasants for the general benefit, only to be robbed of his share of the spoil by the strength of the larger animals or the meanness of the smaller ones. Almost is the noble lion won to clemency, when the cock appears. He tells how the fox, disguised as a monk, had beguiled him and his wife and chicks from the convent yard into the forest to read a proclamation of good will and peace among all animals, posted by his majesty, King Lion, and when once in the wilderness had thrown off his holy robe and devoured half the family.

Numerous are the tales and complaints of the fox's perfidy, and so King Lion sends bungling Bruin, after first warning him to look out for Reynard's tricks, to bring the prisoner into court. The bear arrives at the fox's hole and knocks. Reynard declares himself too ill to come to the door; says he has eaten too much honey. Honey is a magic word to Bruin. "What better diet could you have?" he inquired. "You like it?" asked the fox; "then will I crawl out and show you where it is to be found in sweet abundance." He leads the bear to a split log in the nearby woods. "Thrust your nose well in and eat," he says. The bear obeys, when Reynard draws out the wedges, and the trap is sprung. Bruin's howls draw the hunters, and as they come slashing through the bushes, Reynard lingers long enough to gravely lecture his victim on the awful sin of gluttony. But, after various ingenious escapes, Reynard at last is brought to court. So clever is his plea from the gallows steps that the hearts of all the animals are touched, and when at last he whispers into the ear of the avaricious King Lion that he knows of hidden treasure, his death is postponed. Needless to say, it is only another ruse; and so his wickedly clever adventures go on interminably, as is the way with old epics. One by one Reynard outwits and circumvents his chief accusers. At last, through the influence of the fun-loving ape, who takes Reynard's side from a mere joy of mischief, the fox is allowed a trial by battle, and the fiercest of the beasts, the voracious wolf, is pitted against him. But the fox chooses his ground advantageously, fills his tail with sand, which he throws into the eyes of the wolf, slips from his claws by reason of the ape having greased his body, and so comes off victoriously, as he always does. Again and again he extricates himself, like Ulysses, from a hundred perils. At last the Lion falls sick through the machinations of Reynard, who, acting as doctor, orders a poultice made from the livers of the various

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animals, all of certain ages. This prescription of course calls for the sacrifice of all his insistent enemies; and so in the end Reynard becomes a favorite adviser and minister of King Lion.

Incident enough, appealing to the child mind of our rude ancestors, there is in these old tales which have to come down to us in various forms. One may read them in various collections of myths and folk lore. No doubt it was owing to the influence of these myths that a crown of fox tails was sometimes placed upon the head of a prince of rascals when he went to execution in the dark ages. But in the legends of other races than our own the fox has won an equally high place for craft. Did space permit we might tell many from the lore of Indian tribes. Here is one much condensed, from Grinnell's "Black Foot Lodge Tales," where the fox himself falls a victim to wiles:

"Old Man," the hero of many of these legends, goes hunting buffalo bulls, taking with him the cleverest of beasts. When a drove is discovered it is proposed that the fox allow "Old Man" to pluck off all his fur, and, so disguised, that he go among the bulls and execute one of his fantastic dances. "Old Man" declares: "You will seem so funny they will laugh themselves to death." Though the fox demurred, he was at last persuaded. One by one the bulls fall down, exhausted with mirth, but while the partners were skinning so many buffalos and cutting up the meat the sun went down and a cold wind arose, and the too crafty fox was frozen to death.

In Japan the superstitions about foxes sometimes parallel the gruesome belief in were-wolves, cherished long ago by our ancestors. An exquisite literary artist, Lafcadio Hearn, has retold for readers of English tales surpassing in weird imagery and horror any old Celtic or Teuton stories of Reynard. He tells us that "by every shady wayside and in every ancient grove on almost every hilltop, and in the outskirts of every village you may see, while traveling through the Hondo country some little Shinto shrine, before which, or at either side of which, are images of seated foxes in stone." In that part of the world all foxes are supposed to have supernatural power—some use this gift for good and some for evil. Of course the favorite disguise of a goblin fox is that of a beautiful maid. But sometimes they enter human bodies to destroy them. The possessing fox-demon tempts victims at high noon to go where they are sure to be killed. "Strange is the madness of those whom demon foxes enter; sometimes they run naked shouting through the streets; sometimes they lie down and froth at the mouth and yelp as a fox yelps. * * * Possessed folks are also said to speak and write languages of which they were entirely ignorant prior to possession." Here is one Japanese tale which savors of the American "shark." It is sadly marred as I condense it: A fox-possessed person calls upon a wealthy shop-keeper; he reveals in many ways his superhuman powers, and finally tells the merchant that whatever sum of money he shall deposit at night in a certain place he shall find doubled in the morning. The shopman tests the assertion with a very small sum; it proves true. He increases his risk, still with successful issue. Finally he stakes his all, and it vanishes. Here is a pleasanter tale from the same source, and again the story is robbed of much of its grace by the want of space. A gentleman walking in the country one evening sees a fox pursued by dogs; he interferes, driving off the dogs with his umbrella. Next morning a beautiful young girl calls at his house with a large package; she smiles, and says, "Last night I should have died but for your august kindness. I know not how to thank you enough. This is only a pitiful little present." Then she goes away leaving a parcel. On opening it, the man finds it to contain delicious refreshments and silver money.

The Esquimaux have many queer, weird tales of the subtlety, craft and wiles of the fox. Everywhere the animal exists he has made an impress upon folk lore. The realm of fox myths is boundless.

III.

But looking at Reynard from a less imaginative standpoint, we still find him a most interesting creature. Indeed it is of course because he is an animal of really distinguished traits and characteristics that he has won such a fabulous personality. He belongs to the family *canidæ*, and is cousin to dogs and wolves. There are many species found in all the great natural geographical divisions, excepting Australia and South America. But in this division of carnivora the distinctions are to some extent merely a matter of convenience to

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zoologists, and, as Audubon remarks, some of the larger foxes may as well have been small wolves. Yet the structural similarity of the various species is after all more marked than in most genera. Under the recent classification of Huxley there are twenty-four accepted species of foxes, and of these ten are found in North America. But the chief anatomical characteristics—the bushiness of the tail, the long, sharp muzzle, the peculiar shape of the eye pupil—are most marked in four or five of the species which are often referred to as true foxes. The cross fox, so called because of a cross of color in the fur on the shoulders, the red fox and the black or silver fox are by many authorities regarded as one species.* The gray fox and the white fox are distinct. The gray fox abounds in the South, the red fox, with his cross and black or silver brothers, is common to the middle and northern division of North America, while the white fox is the arctic fox, and is found as far north as any animal life. The red fox is closely allied to the common European fox, but is a much handsomer and more aristocratic looking animal. All the true foxes have a peculiar disagreeable odor, live in burrows, or hollow trees, or rock crevices, prowl by night, and are unsocial, shy, suspicious, and so deceitfully cunning that the slang epithet "foxy" has come to imply the possession of sly, clever, or even unscrupulous traits. Though the fox is the scourge of farmers, yet, as everyone knows over the sea, hunting him with hounds and horses has for generations been the chief of sports; in consequence he is conserved and protected for the paradoxical purpose of being killed to make an English holiday. Englishmen have always claimed for their foxes superiority of endurance and cunning, but careful inquiry, anatomical comparisons and scientific investigation do not establish the claim. Indeed Audubon, who was equally familiar with both species, and whose genius for and insight into all matters of wild life is unrivaled, pronounced the common red fox of America much the superior animal in all ways. Though small animals, and especially fowls, are the favorite food, at a pinch foxes will eat grapes and other fruits, insects, cheese and even carrion. All species possess the most acute sense of hearing and smell and sight. They breed once a year, and have from four to eight young at a birth. The pelt is valuable. So much in fashion has the fur of the black and silver fox been at times that $1,000 has been paid for an exceptionally fine skin.†

But all these facts in detail are to be found in natural history books; it is chiefly with the intelligence of this animal that we are concerned in this restricted paper. Now, Gibson tells us that the fox's "incapability of domestication, and the fact that the dog and the fox have never been known to inter-breed, would seem to prove that these animals are by no means so nearly related as was at one time supposed. Ample proof of the very considerable intellectual capacity of the fox is to be found in the stratagems to which it has recourse in securing its prey, but still more in the quickness with which it detects man's strategic efforts to capture it. * * * Nothing can exceed the caution with which Reynard approaches and examines the baited trap or the nonchalance with which he approaches, enters and rifles the snare in which some animal has been already caught, and which he evidently knows can do him no injury until re-set." There are volumes of stories which illustrate the fox's cunning, and which prove beyond question his capacity for association of ideas and his ability to reason. The fox has been known to counterfeit death for hours in order to effect escape. It is not easily caught in traps, though like the wolf it often takes the bait by springing the trap from the under side. Its habit of doubling on its tracks is familiar to all hunters, and it will throw dogs off the scent by taking to water whenever available. It has been known to cross running brooks and then double back and take its way for some distance down the middle of the stream, and so completely nonplus the hounds. There are even well-authenticated cases of an exhausted fox being relieved by its mate fresh for flight, which, bounding into the

* I have caught litters of foxes in the far Northwest containing red, cross and silver puppies, born of a common red fox mother.—EDITOR.

† A superbly fine pelt, raven-black, with the silver-like threads pointing the black hair ends, which I saw once upon a time in Alberta, was sold, I afterwards heard, for £500 in London.—EDITOR.

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trail at some convenient point, has thus led the tired dogs on a new chase.† It is a favorite device of hunted foxes in England to leap to the top of a stone wall, crawl a few feet along the summit until the dogs are over, and then leap down on the side of approach and double back on their tracks. As a last extremity they have been known to fly from the dogs straight to the hunter. In digging out burrowing rabbits, the tunnels of which are too small for them to enter, foxes always show engineering skill by making the shortest possible entrance straight to the young in the nest. Dr. Rae tells how Canadian foxes will take bait from before a loaded gun by digging under the line of discharge at right angles with the gun barrel, so that the fire will be over their heads. The French naturalist, Figuier, relates many thieving tricks played by a semi-tame fox, which in ingenuity and cleverness rival those of monkeys. The fox's stratagems for securing wild game are not less remarkable, and many times this space might easily be filled with well-authenticated examples. To use Romanes' words: "These cases are so numerous and all display so much the same quality of intelligence, that it is impossible to doubt so great a concurrence of testimony." There is a story stoutly vouched for, but rejected by Romanes, Lubbock, Prior and other scientific authorities, of a fox which stole a duck decoy, and hunted with it, placing it close in shore in the brush-fringed bays of a river, and lurking in the cover within springing distance of any lured game. There is another tale, less soberly told, of Reynard's having rid himself of fleas by tearing out some of his hair, rolling it into a ball, which he carried in his mouth while he took to water. When he was completely immersed, and his tormentors had found a refuge in the ball of hair, which he took care to hold high above the stream, he dropped it and them into the tide.

The fur of the European fox is less soft, fine, abundant and valuable than that of the American species. The brush, too, is less bushy, and if there are fewer anecdotes of the sagacity and endurance of our species it is because less attention has been given to the study of the animal and less time to the chronicling of his wiles.

The arctic fox is least shy and suspicious, but that is because he sees and knows least of that perfidious creature, man.

That riding to hounds after the fox has never been the popular sport in America it is in England is owing to the physical features of the country, the greater importance of agriculture, and to the lack of a class of people with the necessary leisure means and taste to indulge in it. In New England the fox is hunted behind dogs, on foot, and shot. Those who hunt the fox with hounds regard shooting the fox as unsportsmanly.

Truth is, that in America, generally speaking, the fox is considered a pest to the farmer, and has not been hunted for sport to any great extent. He has been chiefly killed as a nuisance, or for his fur, and by any effective means. Chased with fleet dogs, shot from behind blinds, suffocated in holes with smoke, destroyed by poisoned meat, foxes are now well nigh extinct in many districts where they once abounded. But where the nature of the country is to the fox's advantage his cunning will probably always maintain him.

† This, however, is also a habit of bucks of the deer family, including wapiti, when hard run.—EDITOR.

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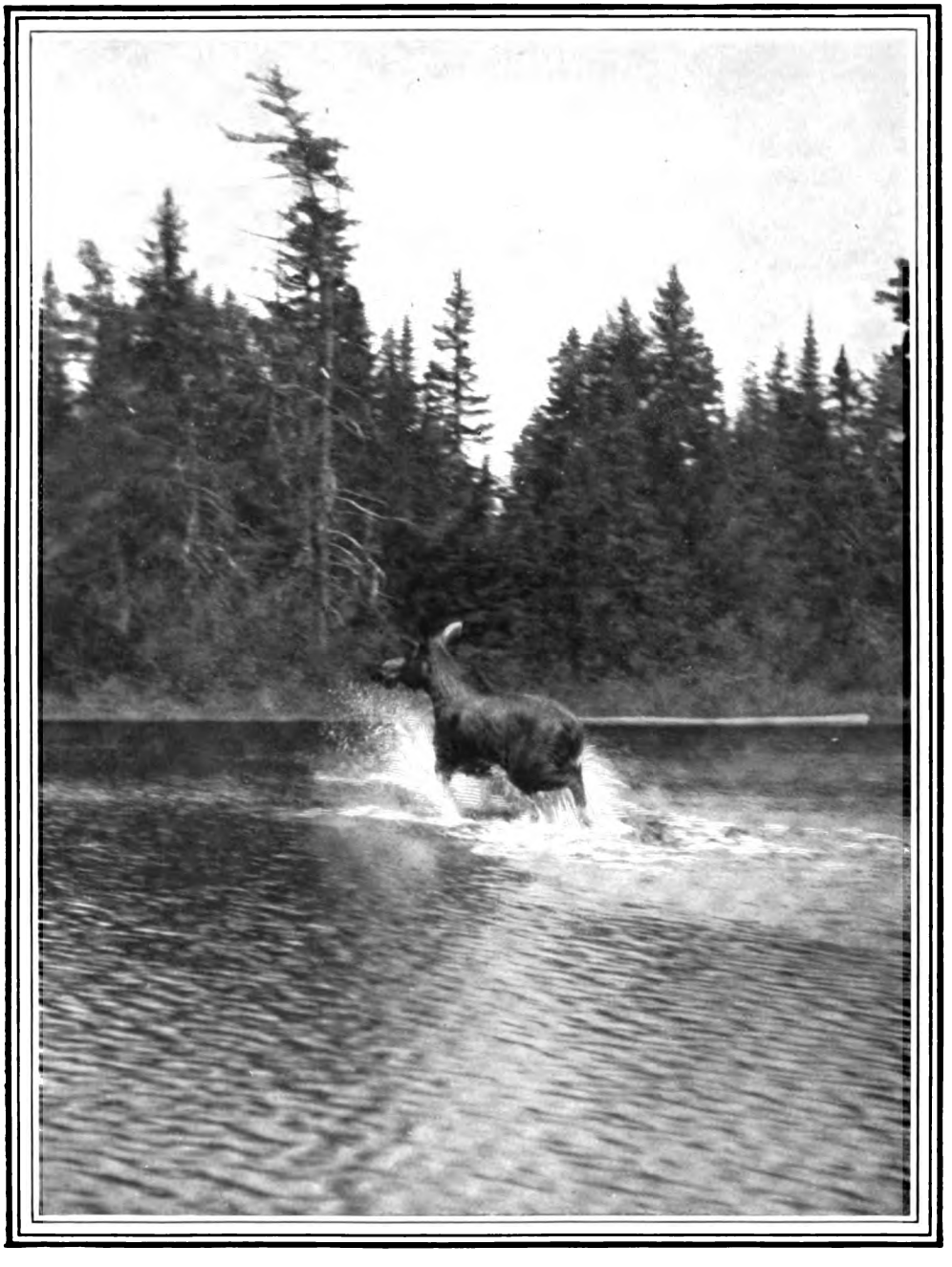

PHOTOGRAPHING A MOOSE AT CLOSE RANGE

THIS photograph and the two on the page following, were taken by Mr. Charles E. Wilson, who had the good fortune to discover a moose swimming Chesuncook Lake, Maine. The animal was headed out for deep water by a party in canoes, and kept there until so thoroughly tired, that he could be approached very closely and studied and photographed at will.

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"WITH THE BROWN RUINS OF TOLEDO CONSPICUOUS BEYOND IN A CUMBER OF MODERN TENEMENTS."

BICYCLING ACROSS OLD CASTILE

By C. Edwardes

AS I pushed my cycle over the Arlanzon's bridge toward the magnificent old gateway of Burgos I might have reflected about the coming hither, as a dead man, of that immortal personage Ruy Diaz, the Cid, Spain's champion against the Moors, in 1099, a matter of just 800 years ago. He came hither then to be buried, having been born here in 1040. That is a long way back in the centuries, yet I should imagine if the Cid's bones now on view in the City Hall could rise up fully fleshed and animated, the Champion would have little difficulty in recognizing the bleak old place which he loved so well. Burgos and Toledo are the most mediæval cities in all Spain, if not in all Europe, and seem likely to continue so.

As a matter of fact, however, I did not just then think of the Cid, but of my prospective run over the wilds of old Castile to the dark mountains of Toledo—a course of about 180 miles, most of them quite off the track beaten by tourists. There was a tearing wind, one of Burgos' characteristics, the dust whirled in my face through the gateway, and though it was the merry month of May, I shivered almost to the bone. But I had this consolation: the wind was a norther and I was bound south. It was a succession of these same May northers which beat back the great Armada when Philip the Second fondly hoped to add England to his possessions. The cyclist may rely upon them in Spain in spring.

I rejoice that I am not called upon to describe Burgos's matchless Cathedral. The guide books may do that, if they can; for me it was as much a place of shelter from the dust as of pilgrimage. The usual beggars were nestling in its dark corners; their outstretched hands and the murmur *Por amor de Dios!* startled at first, but one gets used to this in Spain; and on such a day there was every excuse for the poor fellows, seeing that the keen wind sang hoarsely through the very lattice work of the lofty spires. I was soon in the cold again and pushing up that tiresome slope at the northwest corner. In two minutes' walk from this magnificence I was among the powdery ruins of the castle

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slope, with belled sheep spying for grass blades and plaided shepherds hugging the lee side of humps of masonry. A funeral procession passed at the trot, the coffin painted a coarse blue. Behind and below, the russet roofs of the old city contrasted well with the purer yet pallid blue of the sky. Crash went one of the Cathedral bells and then another, and, the wind notwithstanding, the dusty hillocks echoed to the sound.

I sought but one sight more in Burgos today: the very famous Convent of Las Huelgas, to which my cycle soon carried me by the pretty Paseo de la Isla, which might have smelled sweeter than it did. The Convent is only a mile from the city, and though still tenanted by nuns of noble birth, its tawny walls have the same look of slow decay which meets one in most old cities of Spain. Edward I. of England was knighted here by Alfonso the Wise in 1254, and several early monarchs here lie mouldering. In the jealously isolated chapel of the Convent the nuns were chanting drearily while I perambulated the outer precincts. When I chose to peep through a wicket, I could see them as a faint purple shadow in the gloom. But I preferred to copy the ancient inscription which tells so naïvely of the Convent's royal and divine origin some seven centuries ago.

"The good King (Alfonso VIII.) being conquered by the Moors in the battle of Alarcos, thinking it was for some sin, agreed with his Queen, Doña Leonor, his wife, to found this Monastery and the Hospital called the royal, and gave it to this Monastery.

"Afterward this good King aided his army in the City of Toledo and gained the great battle of Las Navas de Tolosa, in which 200,000 Moors died and only 25 Christians." . . . .

In those early days they often had such preposterously one-sided battles, according to Spanish chronicles; but one need not feel too sorry for the slaughtered infidels, seeing that in the Moorish chronicles the results are often just as strangely to the credit of the Moors. Arithmetic was not then an exact science in the Peninsula. In those early days, too, the abbess of this royal Convent could send a man to the gallows at a moment's notice like the king himself. One would hardly suppose it, listening to the more than humble drone of the purple nuns on this May morning.

But it was time for me to be moving, and so I returned by the flowers and fountains of the Paseo—the fountains somewhat stagnant—and after a last fond look at the loyal city, recrossed the bridge and found myself on the stately "Carretera de Madrid." The white dust eddied ahead, but dimly through it I could see the long-limbed trees which marked the climbing thoroughfare to the south. I had no need to ask the heavily cloaked wayfarers for guidance. They indeed, like myself, had quite enough to do with the dust. And here let it be said that this road, right to the vicinity of Madrid save only in crossing the Sierra, is quite of the best, well macadamized and kept in splendid order as if still used by the gilded coaches of the court and nobility, as in the past centuries. Dry weather, such as I enjoyed, breeds dust on it inevitably, and there were times when I drove before the wind through blinding clouds of it for minutes in succession. But even in heavy rain it may be warranted free from mud, because mournfully (from poor Spain's point of view) free from the traffic which means national prosperity.

Burgos stands 2,867 feet above the sea level, and Toledo 2,400 feet. My route across the crimson and yellow desert of old Castile was likely to be a bracing one throughout, especially in such weather.

Once free of the Arlanzon's narrow valley, I mounted and was relieved from all effort. The wind took me by the shoulder and whisked me forward. Looking back after a minute or two, nothing was visible of Burgos except the pinnacles of its cathedral far away.

I have enjoyed many a fine scamper in Europe, but this afternoon's run to Lerma, and the next day's jaunt to Boceguillas, were about the best of them. One trying incident, however, occurred in the first hour. A mule wagon, the mules driven tandem, took fright at the bicycle, bolted and overturned the whole show into a field to the left. It was a sad spill of household furniture, women and children, and when I returned to face the music, the drivers both looked as if they would eat me on the spot. But no one was nearly killed, apologies and a little silver worked wonders, and other men and mules came up to put matters tolerably straight. The Spanish peasant is more of a gentleman at heart than the functionaries who rule and tax him so abominably. When I rode on again, it was actually with good wishes from the travelers I had upset.

After this I was rather nervous about

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Spanish beasts of burden, but I had no other serious accident to deplore.

They are an easy going people in Spain, more disposed to wonder at the foreigner's absurd energy in exerting himself on a bicycle than to put hindrances in his way. There are no police to stop you for your license, and you may ride as fast as you like in the towns and outside them. Now and then an irritated donkey kicks out at the machine as it flashes past, but that disturbs the donkey's rider more than the bicyclist; though I confess I was annoyed when, near Segovia, one particular rider, a gypsy girl, was thereby tumbled flatly to the ground. Her language, however, as she remounted, quite soothed me. It was surprisingly vindictive.

IT IS WELL TO CARRY BUT LITTLE LUGGAGE, AND HAVE THAT LITTLE COMPACT AND SNUGLY STOWED AND BOUND TO THE WHEEL.

With the hills above Lerma glowing gorgeously purple and crimson in the sunset, I pulled up at the mellow old inn of that once important ducal town. One would have thought from the fuss I caused in Lerma that no such thing as a bicycle had ever been seen there. Citizens, school-children, and the broad-hatted priests themselves crowded about the inn-door to view the novelty. But the innkeeper proudly constituted himself my champion. He carried the bicycle into a loft, laid it tenderly on a heap of barley and locked the door.

"They are ignorant persons, señor; excuse them!" said the good fellow.

A cup of chocolate prepared me for the road at six the next morning. Cuckoos and larks were then choiring in the clear sunlight where trees give Lerma's valley a touch of verdure. But I was soon again on the treeless waving plateau, with the unchecked north wind shrieking at my back and along the telegraph wires which kept me company. It shrieked without ceasing until the sunset saw me in Boceguillas, gazing entranced at the snowy heights of the Guadarrama Sierra to the south, panoplied in purple and gold.

Save for the halfway halt at Aranda on the Duero, twenty-five miles from Lerma, I passed no town on the road. Divers yellow-brown villages of dried mud bricks pleaded silently for notice; but I was not attracted by them. Their dogs and children rushed out at me and, with an interest in me I could have dispensed with, chased me briefly: that was all. Mortuary crosses by the roadside told of the bad days when bandits were common hereabouts, and ferocious besides. But there were no bandits for me; only red-jacketed road menders who saluted and bade me "Go with God." A blind man riding an ass with his face sternward, while a girl in front clasped him around the waist with one arm and devoted the other to the quadruped, was one of several pretty little roadway touches. But the vivid colors of Old Castile's arid wastes pleased me most: strong yellows and reds and whites and blacks, according to the rocks and the soil. Such vines and grain as I saw were in a miserable plight. The north wind, which was aiding me so splendidly, was murder to them—that and the drought of which every one complained.

Aranda on the Duero seemed to have more pigs than people in its streets—the pigs a curious slaty color and singularly loath to move for a bicycle or anything. It is

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memorable for its lovely old Gothic church and the kindness of the landlady of the inn, who would fain have had me go to bed after the terrible fatigues of the morning. Instead of going to bed, however, I rode off under her amiable, upraised hands, crossed the river and had a blithe time for an hour on the flat. The subsequent climbs in blazing heat rather abated enthusiasm until Madrid's mountains appeared. Then all was glory to Boceguillas. Downhill, too, for a few miles, with a couple of magpies jerking into sight at the entrance of the ramshackle village as if to welcome me. The music of the sheep bells, as a brown herd teemed into the street just ahead of me, was as melodious as ever in the sunny south. I was amused to see the flock itself fall asunder gradually of its own accord; with a bleat of satisfaction each animal made for its cottage, until the shepherd alone was left.

I could be diffuse about the defects of Boceguillas' inn accommodation if it were worth while. Let it suffice to say that it was short of most things, and that there was quite an awkward hole in my bedroom floor. But the sheets were clean, the bed was not too hard and the people were more than kind. Their plea, "It is a poor country, señor, and illustrious strangers do not often come to us," would have disarmed any man's temper. I preferred to remember, with thanksgivings, the superb last few downhill kilometers into the village.

The pigs in the house woke me early in the morning. I was grateful to them when I saw what a morning it was, and believe me it was quick work to wash, dress, bolt chocolate and get off again onto the road. The Sierra had crimson summits and roots of so dark a purple that they seemed black. The far-extending rise of the land to the south was of emerald green studded with pine woods like ink blots.

The lizards on the white road had to take care of their tails, as I covered the four miles to Sepulveda in the warm perfumed air. Here was an oasis indeed! Fruitful gardens, high hedges of bamboo, and a pellucid river in which the trout sported in troops. The grey old town, gripped with battlemented walls, rose above this fertile nook in a stupendous cleft of red and gray rock. The ascent out of Sepulveda was precipitous and long. Had I not the great Guadarrama in view to the left, I might have fancied I was getting to the topmost of Spain's summits. But though I rose they remained colossal.

Then it was on through a dry stony land with patches of dark pine woods, but hardly a drop of water anywhere; little cultivation, too, and about one inhabitant to the square mile. Spain's barrenness in Old Castile is astonishing. One may doubt too if reforesting would now do much for this bone-dry plateau, so piercingly cold in winter and so furnace-hot in the dog days. Here I was no longer chilled: baked instead whenever I dismounted to smoke a cigarette under the limited shade of a pine tree. For one scorching hour, I did rather more than merely smoke. I dropped off to sleep on the soft bed of the pine needles, with my foot on the hind wheel of the bicycle as a precaution. But when I awoke no one was in sight, even as when I shut my eyes. The white road stretched nakedly right and left from the green pine clump, and the unclouded skies canopied the desolate landscape. I found, however, that I was being intelligently explored by more ants than I cared to accommodate, and they soon set me going again.

Veganzones, Turegano and other mean hamlets were passed on this treeless gridiron of land, so cruelly wronged by the clean sweep of its timber centuries ago. I ate lettuces, meat scraps and hard-boiled eggs with the family in the inn of Veganzones. Excellent were the wine and courtesy of the house, but I did not tarry in enjoyment of them; no, not even when tempted by the singing of the dark-eyed daughter of the house to the thrumming of her father's guitar.

Turegano's huge rotting castle threw a broad shadow across the road. The ugliest of its days are over, however; not now is a minister of Spain in much peril of being immured in it like Perez, Philip II.'s secretary, who knew too much about his master and was not wise in proclaiming the fact.

At fifty-one miles from Boceguillas, the bronzed cathedral of Segovia allured me into that majestic city of precipices and aqueduct arches. The slow grind up the winding road into the cool dark streets almost put an end to my energies. Almost, but not quite; for after halting in the golden atmosphere of this cathedral I pushed on to La Granja, in the very woods of the noble Sierra. It was only six miles farther, but all uphill miles, for at the end of them, with the famous summer palace of the booby

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King Philip IV. before me, I was 3,840 feet above sea level.

La Granja is a resort of fashion in midsummer. But in May it is empty, cold too, for the great screen of the Sierra behind holds the north wind and turns it back upon the lofty place in a very chilling manner. I shivered among the fountains and statuary groups of the royal palace, found snow spots in the royal woods among the mossy boulders, and was glad to snuggle into my hotel and its moderate warmth. Of all sites for a palace! But stay, the Escorial, on the other side of the mountain, is just as bad, and proved just as expensive to Spain. Millions upon millions of dollars have been spent at La Granja in moving granite blocks and slicing away chunks of mountain to make level gardens. Of the two dozen fountains, that called "Diana's Baths" is one of the most admired. It satisfied even Philip III., for he looked at it when it was finished and said, "It has cost me three millions, but it has also amused me for three minutes!" Spain's Bourbon kings were terribly dear luxuries for Spain.

THE TRAFFIC OF THE COUNTRY.

The gem piece of the trip came with the morning. I had to pass the Sierra. For a mile or two it was easy and bewitching. The perfect road ran in the greening woods with tumbling waters and gorgeous butterflies all around me. Then I came to the zigzags, and pushed and pushed in the sand. This continued for an hour. Old Castile's vast desert gleamed coral-red and sulphur-colored behind me, like a patch of Turner's canvases. I perspired much and groaned a little. At last the butterflies were done with, and all the trees save stunted pines, the snow-clad rock of La Peñalara towered tall to the left, and a tearing blast through the Puerto or Pass of Nava Cerrada told me I might rest and be thankful. I felt thankful too for the moment even to Philip III. of Spain for this La Granja whim of his. The whim made the road, you see.

It was now the Province of Madrid, and very fierce was the gateway by which I thus approached the capital. The Sierra on this side shoots up savage needles of rock for miles. The snow in their niches gave emphasis to their brutality of aspect. A rugged palisade some twenty miles from east to west and 6,000 to 9,000 feet high!

I faced for Madrid and pelted down the red southern zigzags. The north wind was done with. The air was twenty degrees warmer, by and by indeed sweltering, so that when I was on the arid outskirts of the capital it was like being on an oven top.

To the bicyclist, Madrid is a place of mixed emotions. He has to toil into it by bad, rutty roads, and horrible, cobbled streets. Its parks have some charming level tracks —and that is all. And in leaving it there is the same harassing fringe of labor before anything like comfortable movement may be enjoyed. In heat and dust and no shade at all, I passed on to Toledo, some seven and thirty miles of road, good, bad and indifferent, through poverty-stricken villages and raw landscapes brightened only by the blue sky and the red poppies in the starved barley.

You would expect the highway between two such cities as Madrid and Toledo to be excellent, but it is that nowhere. The eye has to be ever on the alert for holes and ruts.

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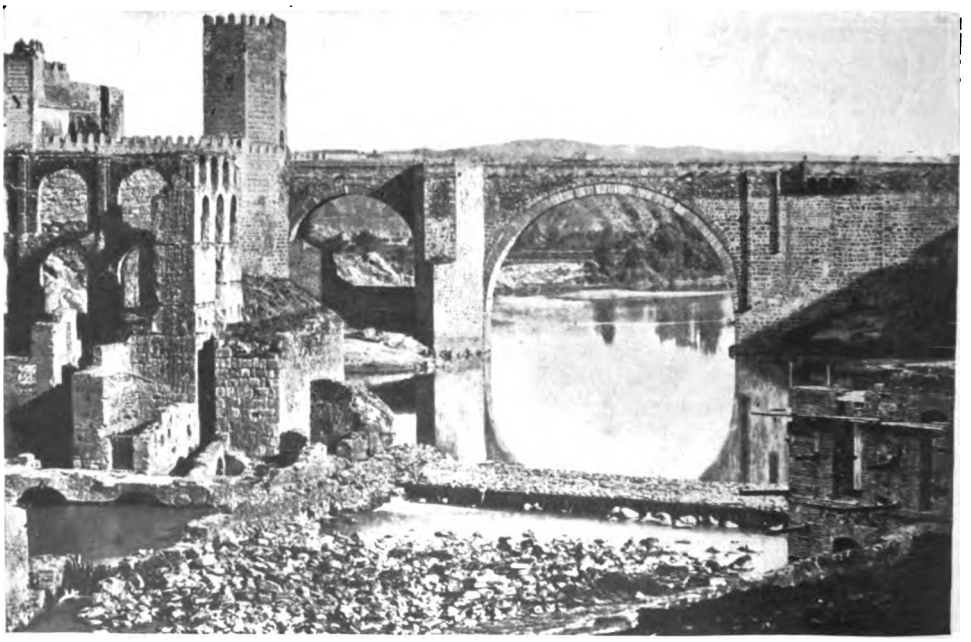
Such heavy traffic in wine and live cattle as exists in these parts is carried on wholly by road, and though there might be more of it than there is, there is quite enough to keep the thoroughfare permanently bad for the bicyclist. Elsewhere on Spain's main road the menders manage things really well; good fellows these badged servants of the state are, too, for a chat in the wilds, and in their lonely little shanties one can always get wine of sorts and a shelter. But the Toledo road near the capital seems given up by the authorities as a bad job. It is just as well the scenery is worse than tame until Toledo's mountains are close at hand, and the crimsoned and green valley of the Tagus bursts into sight, with the brown ruins of Toledo itself conspicuous beyond in a cumber of modern tenements.

Of Toledo it is impossible to say much here. It is a dying city, but tremendously impressive still. The Tagus glides and roars round three sides of its rock walls. Its fortifications of three epochs may still be traced, the latest, of Charles V.'s time, still stout enough to resist a moderate assault. In the city the mark of the Moor is still plain for all eyes: dainty porticoes and cool, colonnaded courtyards. On the outer walls of the Church of St. John of the Kings are iron fetters, the centuries-old chains taken from Christian captives when the Saracens were kicked hence for good and all. If you go down to the river, you may find a Moorish water mill, the rotten beams of which still support the weighty grindstones used by Abdullah and his kinsmen in mediæval times. The past is embalmed in Toledo, and the electric lamps about the city do but help to illumine the fact.

I and my bicycle on the rare old bridge of the Alcantara, which began with the Romans about a millennium and a half ago, seemed as anomalous as the advertisements on Moorish masonry. It was by this bridge that in 1099, Alfonso VI. went forth in mourning from the city he was so proud to have torn from the Moors, to meet the body of the Cid in its glorious march from Valencia to Burgos. Though a dead man, the Cid sat erect upon his good horse Bavieca. Thus dead he had won the great battle of Valencia, in which two and twenty Moorish kings were killed; and thus dead he went martially to his tomb, with the grateful King of Castile in his train.



THE RARE OLD BRIDGE OF ALCANTARA

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THE STORY OF THE TRAPPER

II. THE SPINSTER MOOSE

By A. C. Laut

IT is a grim joke of the animal world that the lazy moose is the moose that gives wings to the feet of the pursuer. When snow comes, the Trapper must have snowshoes and moccasins. For both, moose supplies the best material.

Bees have their drones, beaver their hermits, and moose a ladified epicure who draws off from the feeding yards of the common herds, picks out the sweetest browse of the forest and gorges herself till fat as a gouty voluptuary. While getting the filling for his snowshoes, the Trapper also stocks his larder; and if he can find a spinster moose, he will have something better than shredded venison and more delicately flavored than finest teal.

Sledding his canoe across shallow lakelets, now frozen like rock, still paddling where there is open way, the Trapper continues to guide his course up the waterways. Big game, he knows, comes out to drink at sunrise and sunset; and nearly all the small game frequents the banks of streams either to fish, or to prey on the fisher. Each night he sleeps in the open with his dog on guard; or else puts up the cotton tepee, the dog curling outside the tent flap, one ear awake. And each night a net is set for the white-fish that are to supply breakfast, feed the dog and provide heads for the traps placed among rocks in mid-stream, or along banks where dainty footprints were in the morning's hoar frost. Brook trout can still be got in the pools below waterfalls; but the Trapper seldom takes time now to use the line, depending on his gun and fish net.

During the Indian's white-fish month—the white man's November—the weather has become colder and colder; but the Trapper never indulges in the big log fire that delights the heart of the amateur hunter. That would drive game a week's tracking from his course. Unless he wants to frighten away nocturnal prowlers, a little, chip fire, such as the fishermen of the Banks use in their dories, is all the Trapper allows himself.

First snow silences the rustling leaves. First frost quiets the flow of waters. Except for the occasional splitting of a sap-frozen tree, or the far howl of a wolf pack, there is the stillness of death. And of all quiet things in the quiet forest, the Trapper is the quietest.

As winter closes in the ice-skim of the large lakes cuts the bark canoe like a knife. The canoe is abandoned for snowshoes and the cotton tepee for more substantial shelter.

If the Trapper is a white man he now builds a lodge near the best hunting ground he has found. Around this he sets a wide circle of traps at such distances their circuit requires an entire day, and leads the Trapper out in one direction and back in another, without retracing the way. Sometimes, such lodges run from valley to valley. Each cabin is stocked; and the hunter sleeps where night overtakes him. But this plan needs two men; for if the traps are not closely watched, the wolverine will rifle away a priceless fox as readily as he eats a worthless muskrat. The stone fireplace stands at one end. Moss, clay and snow clink up the logs. Parchment across a hole serves as window. Poles and brush make the roof, or perhaps the remains of the cotton tent stretched at a steep angle to slide off the accumulating weight of snow. But if the Trapper is an Indian, or the white man has a messenger to carry the pelts marked with his name to a friendly trading post, he may not build a lodge; but move from hunt to hunt as the game changes feeding ground. In this case, he uses the *abuckwan*—canvas—for a shed tent, with one side sloping to the ground, banked by brush and snow, the other facing the fire, both tent and fire on such a slope that the smoke drifts out while the heat reflects in. Pine and balsam boughs, with the wood end pointing out like sheaves in a stook, the

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foliage converging to a soft center, form the Trapper's bed.

The snow is now too deep for travel without snowshoes. The frames for these the Trapper makes of ash, birch, or best of all, the *muckikwatick*—tamarack—curving the easily bent green wood up at one end, canoe shape, and smoothing the barked wood at the bend, like a sleigh runner, by means of the awkward *couteau croche*, as the French hunter calls his crooked knife.

In style, the snowshoe varies with the hunting ground. On forested, rocky, hummocky land, the shoe is short to permit short turns without entanglement. Oval and broad, rather than long and slim, it makes up in width what it lacks in length to support the hunter's weight above the snow. And the toe curve is slight; for speed is impossible on bad ground. To save the instep from jars, the slip noose may be padded like a cowboy's stirrup. On the prairie, where the snowy reaches are unbroken as air, snowshoes are wings to the hunter's heels. They are long, and curved, and narrow, and smooth enough on the runners for the hunter to sit on their rear ends and coast down hill as on a toboggan. If a snag is struck midway, the racquets may bounce safely over and glissade to the bottom; or the toe may catch, heels fly over head, and the hunter land with his feet noosed in frames sticking upright higher than his neck.

Any Trapper can read the story of a hunt from snowshoes. Round and short: east of the Great Lakes. Slim and long: from the Prairie. Padding for the instep: either rocky ground, or long runs. Filling of hide strips with broad enough interspaces for a small foot to slip through: from the wet, heavily packed, snow region of the Atlantic coast; for trapping only, never the chase, small game, not large. Lace ties, instead of a noose to hold the foot: the amateur hunter. *Atibisc*, a fine filling taken from deer or caribou for the heel and toe; with *askimonciab*, heavy, closely interlaced, membraneous filling from the moose across the center to bear the brunt of wear; long enough for speed, short enough to turn short: the Trapper knows he is looking at the snowshoe of the craftsman. This is the sort he must have for himself.

The first thing, then—a moose for the heavy filling; preferably a spinster moose; for she is too lazy to run from a hunter who is not yet a Mercury; and she will furnish him with a banquet fit for kings.

II.

Neither moose call nor birch horn, of which wonders are told, will avail now. The mating season is well past. Even if an old moose responded to the call, the chances are his flesh would be unfit for food. It would be a wasted kill, contrary to the principles of the true Trapper.

Every animal has a sign language as plain as print. The Trapper has hardly entered the forest before he begins to read this language. Broad hoof-marks are on the muskeg—quaking bog, covered with moss—over which the moose can skim as if on snowshoes, where a horse would sink to the saddle. Park-like glades at the heads of streams, where the moose have spent the summer browsing on twigs and wallowing in water holes to get rid of sand flies, show trampled brush and stripped twigs and rubbed bark. Coming suddenly on a grove of quaking aspens, a saucy jay has fluttered up with a noisy call—an alarm note; and something is bounding off to hiding in a thicket on the far side of the grove. The *wis-kat-jan*, or whisky jack, as the white men call it, who always hangs about the moose herds, has seen the Trapper and sounded the alarm. In August, when the great, palmated horns, which budded out on the male in July, are yet in the velvet, the Trapper finds scraps of furry hair sticking to young saplings. The vain moose has been polishing his antlers, preparatory to mating. Later, there is a great whacking of horns among the branches. The moose, spoiling for a fight, in moose language is challenging his rivals to battle. Woodchoppers have been interrupted by the apparition of a huge, palmated head through a thicket. Mistaking the axe for his rival's defiance, the moose arrives on the scene in a mood of blind rage that sends the chopper up a tree, or back to the shanty for his rifle.

But the Trapper allows these opportunities to pass. He is not ready for his moose until winter compels the abandoning of the canoe. Then the moose herds are yarding up in some sheltered feeding ground.

It is not hard for the Trapper to find a moose yard. There is the tell-tale cleft footprint in the snow. There are the cast-off antlers after the battles have been fought—the female moose being without horns and

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entirely dependent on speed and hearing and smell for protection. There is the stripped, over-head twig, where a moose has reared on hind legs and nibbled a branch above. There is the bent or broken sapling which a moose pulled down with his mouth and then held down with his feet while he browsed. This and more sign language of the woods—too fine for the language of man—lead the Trapper close on the haunts of a moose herd. But he does not want an ordinary moose. He is keen for the solitary track of a haughty spinster. And he probably comes on the print when he has almost made up his mind to chance a shot at one of the herd below the hill, where he hides. He knows the trail is that of a spinster. It is unusually heavy; and she is always fat. It drags clumsily over the snow; for she is lazy. And it doesn't travel straight away in a line like that of the roving moose; for she loiters to feed and dawdle out of pure indolence.

And now the Trapper knows how a hound on a hot scent feels. He may win his prize with the ease of putting out his hand and taking it—sighting his rifle and touching the trigger. Or, by the blunder of a hair's breadth, he may daily track twenty weary miles for a week and come back empty at his cartridge belt, empty below his cartridge belt, empty of hand, and full, full of rage at himself, though his words curse the moose. He may win his prize in one of two ways: (1) by running the game to earth from sheer exhaustion; (2) or by a still hunt.

The straightaway hunt is more dangerous to the man than the moose. Even a fat spinster can outdistance a man with no snowshoes. And if his perseverance lasts longer than her strength—for though a moose swings out in a long-stepping, swift trot, it is easily tired—the exhausted moose is a moose at bay; and a moose at bay rears on her hind legs and does defter things with the flattening blows of her forefeet than an exhausted man can do with a gun. The blow of a cleft hoof means something sharply split, wherever that spreading hoof lands. And if the something wriggles on the snow in death throes, the moose pounds upon it with all four feet till the thing is still. Then she goes on her way with eyes ablaze and every shaggy hair bristling.

The contest was even and the moose won.

Apart from the hazard, there is a barbarism about this straightaway chase, which repels the Trapper. It usually succeeds by bogging the moose in crusted snow, or a water hole—and then, Indian fashion, a slaughter; and no Trapper kills for the sake of killing.

A slight snow fall and the wind in his face are ideal conditions for a still hunt. One conceals him. The other carries the man-smell from the game.

Which way does the newly discovered foot-print run? More flakes are in one hole than the other. He follows the trail till he has an idea of the direction the moose is taking; for the moose runs straightaway, not circling and doubling back on cold tracks like the deer, but marching direct to the objective point, where it turns, circles slightly—a loop at the end of a line—and lies down a little off the trail. When the pursuer, following the cold scent, runs past, the moose gets wind and is off in the opposite direction like a vanishing streak.

Having ascertained the lie of the land, the Trapper leaves the line of direct trail and follows in a circling detour. Here, he finds the print fresher, not an hour old. The moose had stopped to browse and the markings are moist on a twig. The Trapper leaves the trail, advancing always by a detour to leeward. He is sure, now, that it is a spinster. If it had been any other, the moose would not have been alone. The rest would be tracking into the leader's steps; and by the fresh trail he knows for a certainty there is only one. But his very nearness increases the risk. The wind may shift. The snow fall is thinning. This time, when he comes back to the trail, it is fresher still. The hunter now gets his rifle ready. He dare not put his foot down without testing the snow, lest a twig snap. He parts a way through the brush with his hand and replaces every branch. And when next he comes back to the line of the moose's travel, there is no trail. This is what he expected. He takes off his coat; his leggings, if they are loose enough to rub with a leathery swish; his muskrat fur cap, if it has any conspicuous color; his boots, if they are noisy and given to crunching. If only he aim true, he will have moccasins soon enough. Leaving all impedimenta, he follows back on his own steps to the place where he last saw the trail. Perhaps the saucy jay cries with a shrill, scolding shriek that sends cold shivers down the Trapper's

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spine. He wishes he could get his hands on its wretched little neck; and turning himself to a statue, he stands stone still till the troublesome bird settles down. Then he goes on.

Here is the moose trail!

He dare not follow direct. That would lead past her hiding place and she would bolt. He resorts to artifice; but, for that matter, so has the moose resorted to artifice. The Trapper, too, circles forward, cutting the moose's magic guard with transverse zig-zags. But he no longer walks. He crouches, or creeps, or glides noiselessly from shelter to shelter, very much the way a cat advances on an unwary mouse. He sinks to his knees and feels forward for snow pads every pace. Then he is on all fours, still circling. His detour has narrowed and narrowed till he knows she must be in that aspen thicket. The brush is sparser. She has chosen her resting ground wisely. The man falls forward on his face, closing in, closing in, wiggling and watching till—he makes a horrible discovery. That jay is perched on the topmost bough of the grove; and the man has caught a glimpse of something buff-colored behind the aspens. It may be a moose, or only a log. The untried hunter would fire. Not so the Trapper. Haphazard aim means fighting a wounded moose, or letting the creature drag its agony off to inaccessible haunts. The man worms his way round the thicket, sighting the game with the noiseless circling of a hawk before the drop. An ear blinks. But at this instant the jay perks his head to one side with a curious look at this strange object on the ground. In another second it will be off with a call and the moose up.

His rifle is aimed!

A blinding swish of aspen leaves and snow and smoke! The jay is off with a noisy whistle. And the Trapper has leather for moccasins, and heavy filling for his snowshoes, and meat for his larder.

III.

But he must still get the fine filling for heel and toe; and this comes from caribou or deer. The deer, he will still hunt as he has still hunted the moose, with this difference: that the deer runs in circles, jumping back in his own tracks leaving the hunter to follow a cold scent, while it, by a sheer bound—five—eight—twenty feet off at a new angle, makes for the hiding of dense woods. No one but a barbarian would attempt to run down a caribou; for it can only be done by the shameless trick of snaring in crusted snow, or intercepting while swimming, and then—butchery.

The caribou doesn't run. It doesn't bound. It floats away into space.

One moment a sandy-colored form, with black nose, black feet and a glory of white statuary above its head—is seen against the far reaches of snow. The next, the form has shrunk—and shrunk—and shrunk, antlers laid back against its neck, till there is a vanishing speck on the horizon. The caribou has not been standing at all. It has skimmed out of sight; and if there is any clear ice across the marshes, it literally glides beyond vision from very speed. But, provided no man-smell crosses its course, the caribou is vulnerable in its habits. Morning and evening, it comes back to the same watering place; and it returns to the same bed for the night. If the Trapper can conceal himself without crossing its trail, he easily obtains the fine filling for his snowshoes.

IV.

Moccasins must now be made.

The Trapper shears off the coarse hair with a sharp knife. The hide is soaked; and a blunter blade tears away the remaining hairs till the skin is white and clean. The flesh side is similarly cleaned and the skin rubbed with all the soap and grease it will absorb. A process of beating follows till the hide is limber. Carelessness at this stage makes buckskin soak up water like a sponge and dry to a shapeless board. The skin must be stretched and pulled till it will stretch no more. Frost helps the tanning, drying all moisture out; and the skin becomes as soft as down, without a crease. The smoke of punk from a rotten tree gives the dark yellow color to the hide and prevents hardening. The skin is now ready for the needle; and all odd bits are hoarded away.

Equipped with moccasins and snowshoes, the Trapper is now the winged messenger of the tragic fates to the forest world.

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THE PROFESSIONAL AND THE AMATEUR IN DOG BREEDING

By Mrs. Oughton Giles

THE first show of the Ladies' Kennel Association was an unqualified success. Many difficulties had to be faced in a new undertaking, not the least being that the week before Christmas was the only one for which the Madison Square Garden could be secured without trespassing on the date of the older fixture of the Westminster Kennel Club. I am told this was the first occasion in the history of the Garden that the hall has been let on this date, so unfavorable is it considered for securing a paying gate, and therefore that the L. K. A. Committee could pay expenses and have possibly a surplus shows how appreciative the people of New York and the doggy world generally have been of the efforts made by the L. K. A. of America to hold a show worthy the ideal of its members. It is much to be wished the Committee could have ventured to set the example of limiting a show to three days; for that is quite sufficient to try both the physical and mental caliber of exhibitors and exhibits; and it was not only the trying delay in judging the long list of beautiful specials on the fourth day that made both look worn out. The judging of these might have been made easier to the exhibitor and more interesting to a spectator if the numbers of the special under discussion had been chalked up, with the number of the one following also given. In most of the rings during the class judging, printed numbers were given the person showing the dog on entering the ring, and where these were at once properly attached to hat or coat the ease and pleasure of watching the dogs was much enhanced. Some handlers, however, did not seem to understand what the tickets were for and promptly put them in a pocket or held them in their hands, generally blank side toward the outside of the ring. The awards were also frequently not marked up on the blackboards. The system which prevails in England of having a printed award list placed on a board in each ring of the classes judged there should find favor here. These lists are filled up as each class of each breed is judged, and generally remain there during the continuance of the show, being accessible therefore to visitors who are anxious to know an award and have not been able to be present at the judging. In America, where all the important shows last so long, this means of reference should be appreciated.

It is not, however, so much with these little matters of detail that this article is concerned, but with the far more important and interesting side of what progress dog breeding is making on this side of the Atlantic and what prospect there is of attaining the success of English breeders. In the face of the number of imported dogs and the enormous sums paid for many of them, it is impossible to deny that in most breeds Americans recognize their inability to produce dogs of the undoubted quality of imported specimens. Here one exception must be made in respect of Boston terriers, as they are an entirely American breed. They seem to be very nice dogs as companions and, though a comparatively new breed, to come very true to type. A very experienced judge, however, says they are delicate, difficult to rear and consequently are very expensive.

Despite the successes of the English breeder, every one knows that most of them have very heavy losses and that the percentage of puppies reared is small, while the number of really first lot specimens in class is still smaller. So far as I can learn there is no improvement in that respect in America, and in many breeds the puppies appear to deteriorate in quality on this side. Particularly is this true of bloodhounds, which seem to die off in America worse than in England. Interesting experiments are now proceeding in England with the object of trying to get fresh blood to strengthen the constitution of these dogs, but they have been so inbred for generations that there is practically no outcross in the breed and therefore recourse is being had to a cross with another breed which possesses

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some of the more important characteristics of the bloodhound. In the litters bred from the first cross the bloodhound strain is very marked, an argument in favor of the antiquity and purity of the breed. It will, of course, be some time before the ultimate success of these experiments can be known, and I only refer to the matter here because it would be a mutual help if those who are interested in scientific breeding over here would compare results with those similarly concerned on the other side.

In fox terriers and beagles apparently the American breeder is more successful, as there are excellent specimens of these breeds; but I am told there is a tendency in both to get "leggy" and that great care must be exercised in breeding them. Fresh dogs of the fox terrier breed are continually being imported so that the risk of losing type is greatly minimized. Allowing for the losses and the difficulty of getting a first-class specimen in any breed you may feel quite satisfied if you raise one champion out of one hundred puppies. Considering the number of importations, I was much surprised to see so very few puppies in the toy classes at Madison Square; it seems a pity that more of the very large kennels in America do not try to show puppies of their own rearing. One large kennel which had forty-five entries and possesses all the best Pomeranians shown in England, as well as exceptional facilities for breeding and rearing puppies, had absolutely not one puppy on exhibition of either that breed or of toy spaniels in which it is almost equally strong!

Considering the breeding difficulties, emphasized in many cases by the ignorance of fanciers who are only just buying their experience, great credit is due those kennels which have shown their own stock even if it was not up to show form. It is a great point gained that so many fanciers are beginning to realize that the great pleasure and interest of keeping dogs does not lie in the mere winning of prizes which reflect credit only on the purse of the owner—as a dog that has been a heavy prize winner in England can win handily over here. A third prize or even a card awarded to a dog bred by its exhibitor is infinitely more satisfactory, as a result of the careful mating and patience the breeder has exercised in rearing, than the first prize won by a dog which has been purchased. It appears to me that Americans are too apt to think that the breeding of prize winning dogs necessarily produces prize winners or even very good specimens. There are so many less shows here than in England that perhaps the fact that many winners there have not been successful at stud does not apply here. It is well known that constant showing undermines a dog's constitution, therefore frequently a dog of equally good strain as the notable winner in a kennel is used at stud with very much better results as far as the stamina and quality of the litter is concerned; thus of course the pedigree given is not the real one, as the prize winning dog is given the credit of the litter—to the mutual satisfaction of both owners—because if the pups are to be sold, the purchaser says of a novice, "Oh, he must be a good dog, his father is so and so," and gladly pays a long price for that reason. Thoughtful breeders would never use a prize dog simply for that reason, but they study the respective pedigrees and points of the animals for generations, finally selecting a strain which has shown a strong tendency to preponderate in the points where the other animal fails. These points may tend to exaggeration the first time and it may take two or three more careful selections before the desired result is obtained, the progress of the experiments meanwhile affording an interest and experience which no show does.

Here arises the question, are shows really a benefit to the various breeds? In some instances they seem to have been a distinct evil. In bloodhounds the marvelous head of some specimens has led to a sacrifice of hound qualities and loss of constitution. The same remark applies to collies, the long, narrow head now necessary to a winning collie being quite unsuitable to the work for which he is meant. I read that many sporting breeds suffer from the exaggeration of the fashionable show points; where this occurs it seems to me shows have done harm instead of good. Surely the object should be to encourage the points suitable to the work or sport for which the breed is used. Fox terriers, for example, are no longer the sharp little things which were always sent for when a fox was to be bolted. It must be a Brobdingnag pipe or drain into which t[illegible]er could be put. At the [illegible] at Chelterham, thi[illegible]

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judge, W. Shirley, upsetting all late judging by going for the old-fashioned type of terrier. Shows are probably of much use to toy dogs, especially by way of being a good market; fabulous prices are often given for the tiny specimens whose quality is of the highest. Even as regards the larger breeds a great and favorable factor is that shows undoubtedly stimulate public interest. Whether rightly or wrongly, there is no doubting this to be an age of advertisement, and it is quite noticeable how some breeds have lost public favor because not often seen on the bench. Then, too, shows are certainly the means of introducing new breeds to the public; many that are old and well known in England are being brought over to America where it remains to be seen how such heavy-coated animals as the old English sheep dogs will flourish. There are those who believe they benefit a particular breed, not only by starting with either buying or showing first-rate specimens of their own breeding, but by buying every dog which has either beaten them or may probably do so under certain judges. The result is that all the winning is practically in their hands. Those who are interested in that breed and wish to show are naturally discouraged and turn their attention to some breed where the chances are more open. Not every one can afford either the time or money to wait for the turn of the tide, as it is exceptional to find a kennel which after a time does not cease to produce stock equal to that which first gave it distinction.

It is very much to be wished that amateur dog fanciers would deal with their hobby from a higher standpoint than is often the case. To the professional dog fanciers we owe much. The time, skill and experience they spend on their dogs are of immense use to those who are willing to learn, and they work as hard for their money as any other business person. The amateur who cannot keep dogs without endeavoring to make expenses, and therefore sells puppies or a dog for which he has no farther use, is still entitled to be called an amateur. Those who, still calling themselves amateurs, start with the idea of making their kennels pay, and buy dogs with the definite intention of selling them again at as large a profit as possible, surely place themselves in a most invidious position, and it is not to be wondered at that the professional dog fancier has a grievance, and a genuine one, against his so-called amateur rival. There are many notable instances in America, as in England, where the true sporting instinct, the love of the pastime and not the love of the prize, is predominant. Because the dog is working his way so rapidly into American favor it is the more desirable that those fanciers, men and women, who are able to do so, should range themselves emphatically on the side of genuine sport and let people see that there is a higher education in dogdom than is shown by mere winning at shows or selling at phenomenal prices.

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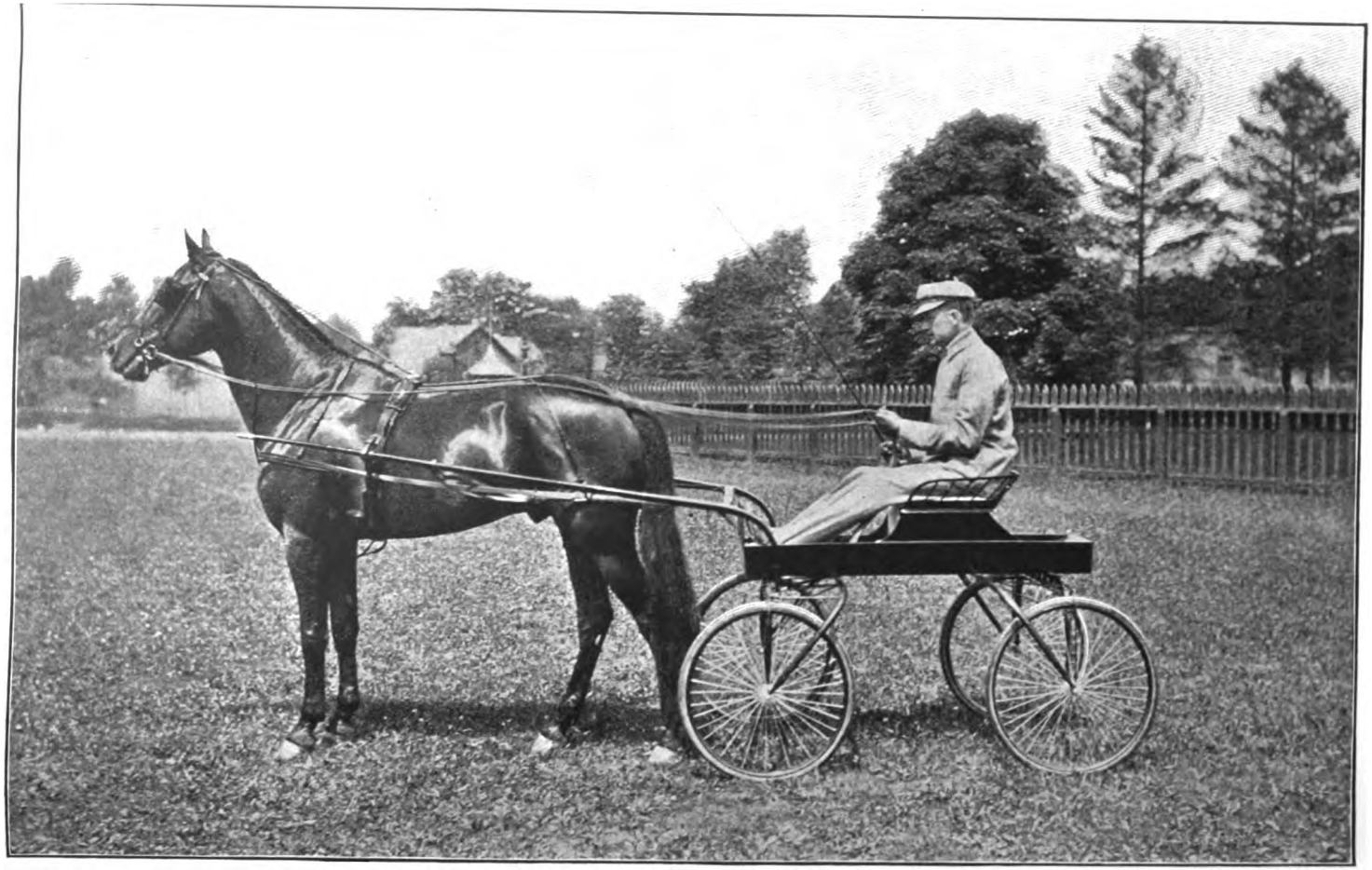

THE FAMOUS WAGON TROTTER, JOHN A. McKERRON. AMATEUR RECORD, 2.06¾.
OWNED AND DRIVEN BY MR. H. K. DEVEREUX, OF CLEVELAND.

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THE SPORTSMAN'S VIEW-POINT

BY CASPAR WHITNEY

"The whole test of the worth of any sport should be the demand that sport makes upon those qualities of mind and body, which in their sum we call manliness."—THEODORE ROOSEVELT.

Smashing Power of the Small-bore Rifle.

I have heard so much discussion among sportsmen as to the relative "smashing" qualities of the large and small-bore rifles, that I know opinions of experienced and practical hunters on the subject are welcome as well as interesting. In my search for corroborative testimony as to the power of the 30-40 and its strength as compared with that of the 30-30, and with that of the 45-90—the rifle beloved of all sportsmen whose entire experience afield is not confined to the last ten years—I have received a very interesting and, it seems to me, so far as it goes, convincing communication from Adam Moore, who is president of the New Brunswick Guides' Association, and himself a guide of good repute and considerable experience on his native heath. His letter is well worth printing in full:

* * * * "The 30-40 is getting to be a very popular rifle for large game in New Brunswick, much more so than the 30-30, which, though a perfect rifle for deer or caribou, lacks the smashing power to make it a suitable rifle for moose. I have seen a soft-nosed 30-30 bullet strike a moose on the side of the head over the brain and go to pieces without doing the moose any damage; he just shook his head and went on, though another through the lungs proved fatal; and I have known them to be shot into a big bull's shoulder and neck and not have power to break the bones. But this does not seem so strange when you consider the thickness of the hide and the muscle on a big bull in September. But with the 30-40, or a rifle of any make that uses as powerful a cartridge, and there are several, it is entirely different, and the smashing power of a 220-grain soft-nosed bullet is something terrible; I have not found any game large and tough enough to stand up before it.

I have found this bullet powerful enough to break the heaviest bones in a moose, and when it strikes the paunch or other soft part it makes a terrible wound, much more so than the larger caliber, with a lower velocity. When shot through the lungs with a 30-40 soft-nose or other similar bullet, moose will seldom take more than a few steps before they go down to stay, and when hit in the paunch the blow in the soft matter is so heavy that it kills them at once; while an animal struck in the same place with a 45-70 or 45-90 would live at least a day and travel many miles.

All hunters have their favorite rifles, and I know of many that will not agree with me, and think there is no rifle to compare with the old big-bore, black-powder rifle, but I have not found it so. I saw a caribou last fall, shot with a 30-40 through the center of the paunch, a side shot, at about 100 yards, that went down in its tracks and died there at once; I saw a big moose shot the same way that went about 70 yards, and died; another moose hit in the paunch with a 45-90 soft-nose hollow-point bullet, we came up to the second day; he was dead, had traveled about five miles.

These are my personal experiences and I have had many more, but they all tend to the same conclusion, that the small-bore high velocity rifle is the best, but it needs a charge as powerful as the 30-40 for moose; I say the 30-40 because that is the commonest rifle of the kind here. The Mauser or Mannlicher I consider equally as powerful, or more so.

ADAM MOORE.

The Club vs. The Rapier.

While not disposed to accept as final this guide's estimate of the killing powers of the 45-90, especially as his hunting appears to have been confined to the deer family, which on the big game hunter's list, are reckoned easiest killed—yet most sportsmen of experience will, I think, agree with his judgment on the 30-40 as an eminently dependable rifle for moose and caribou. Indeed for the entire deer family and for sheep, goat, musk-ox and cougar the 30-40 may be considered a trustworthy weapon; that it is more so than the 45-90 my experience has not yet convinced me. For sheep and goat and antelope the 30-40 undoubtedly is ideal because of its great range and flat trajectory beyond 100 yards; for the other game of America—bear, woodland caribou, wapiti, moose, deer, cougar, more often encountered

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within 100 yards than beyond that distance, I prefer the 45-90—smokeless, of course, no one uses black powder now-a-days—because I can shoot closer with it, and believe it a more consistent performer. For Barren Ground caribou and musk-ox, the 30-40 is perhaps more to be desired on account of its lightness, and, too, because your shots are apt to average at longer range; the musk-ox, however, can carry off a lot of lead. As for the grizzly—I should want some practical experience with the smaller caliber on "Old Ephraim" before I forsook my .45. Grizzly have been killed to the utmost satisfaction of good hunters with the 30-40, but until I have done so myself several times, I shall stick to the old gun—meantime there is before me the mental picture of a female grizzly, shot directly through the heart with a .40 Sharps, a very strong-shooting gun, which had enough vitality remaining to reach my companion in the New Mexican scrub oak and, before dying, to maul him so frightfully that he lay at death's door for several weeks, and recovered as a cripple.

It is true that the 30-40 is a very deadly cartridge; it has unrivaled penetration and great shock, but when I am after dangerous game and likely, under disadvantage, to encounter it at short range, I want a ball which will check a charge, at least long enough to give me a chance to get in a second shot—in other words for really dangerous hunting I want the club rather than the rapier.

Theory vs. Practice.

Perhaps my view is extreme, but at all events it is the result of hard experience—some of it not at all inviting. I was once one of those who scoff at the large caliber rifles used by Englishmen after big game in the Far East. At one time I believed the caliber to be of no consequence; that the man behind the gun was everything (of course I assumed the men to be workmanlike) and the gun (also one of the first class) nothing in comparison. 'Twas always with me a favorite theory and one I sought to put in practice, that the skilled and sportsmanly hunter should pick his shot—therefore why use a ball half an inch in diameter to snuff out the life, which a bullet one-third the size would as effectually extinguish *via* the brain or the heart. It was good theory, gratifying to the sportsman and humane to the beast; and I managed to practise it with slightly interrupted consistency so long as I confined my wilderness searchings to the deer family—white-tail excepted and goat and sheep—though I ought to add that black-tail hunting I at one time had in northwestern New Mexico, was of the most pronounced snap shooting variety, and gave no opportunity of picking a shot.

Some experience with grizzly in the scrub oak gave my theory rather a severe shaking up, but a trip into the Asiatic jungles crumbled it absolutely.

When I set out for the Far East my armory consisted of a 30-40 and an especially made 50-110-300 which I want to add was one of the closest shooting and best guns I ever put to my shoulder. After short experience I found them unequal to the work required. To be sure I did kill a rhinoceros in Sumatra with the .50, because I shot him directly back of the ear; but I put four 30-40 bullets, lead point, into another rhino in Malay and three of the same into an elephant in Siam, and never got sight of either of them thereafter. I had a very narrow escape from a sladang, into which I put two 300 grain bullets from my .50 before killing him on his second charge with a third shot between the eye and ear.

One of my men was chased by an elephant which I could not bring down, until, after a fusilade, a lucky chance gave me a shot into his great ear, and down he dropped. After that I got a double 12 bore, and never used my .50 except for tapir and leopard, or my 30-40 except in open country for deer and boar.

Shooting in the jungles of this Far Eastern section is a very different proposition from shooting in Indian or African jungle land, because the game always has you at disadvantage—while you never by any chance have the game at disadvantage.

I mean by this somewhat lengthy digression to emphasize that smashing power is literally an essential in any country where conditions put you at a disadvantage, and the game is dangerous. And my experience has also taught me that the theory of picking your shot must be abandoned when hunting in a thick country, such as scrub oak for wounded or even healthful grizzly, or in the dense jungles of Siam, Malay and Sumatra where you can not see ahead twenty yards and the game is on top of you before you know it. Such game must be stopped at once and that can only be done by a ball heavy enough to carry smashing power.

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One must choose one's guns according to the country and game one hunts. That in fine is the result of my experience.

Appalachian Park Forest Reserve and Game Refuge.

There are not many questions of more consequence to the American people than those relating to the conservation of our forest lands, and the creation of national and state parks for the purpose of preserving tracts of wild lands, and of providing refuge for the fast disappearing fauna of the New World. And that it is a matter of national concern is evinced by the President's message, a pertinent paragraph from which I quote as well for the benefit of those who may have overlooked it, as for the purpose of emphasizing the importance of the subject itself.

"Certain of the forest reserves should also be made preserves for the wild forest creatures. All of the reserves should be better protected from fires. Many of them need special protection because of the great injury done by live stock, above all by sheep. The increase in deer, elk, and other animals in the Yellowstone Park shows what may be expected when other mountain forests are properly protected by law and properly guarded. Some of these areas have been so denuded of surface vegetation by overgrazing that the ground-breeding birds, including grouse and quail, and many mammals, including deer, have been exterminated or driven away. At the same time the water-storing capacity of the surface has been decreased or destroyed, thus promoting floods in times of rain and diminishing the flow of streams between rains.

"In cases where natural conditions have been restored for a few years, vegetation has again carpeted the ground, birds and deer are coming back and hundreds of persons, especially from the immediate neighborhood, come each summer to enjoy the privilege of camping. Some at least of the forest reserves should afford perpetual protection for the native fauna and flora, safe havens of refuge to our rapidly diminishing wild animals of the larger kinds, and free camping-grounds for the ever increasing numbers of men and women who have learned to find rest, health, and recreation in the splendid forests and flower-clad meadows of our mountains."

Among intelligent citizens there is no doubting this to be one of those rare questions on which party division is impossible, nor will any good American citizen refuse aid to a movement which makes not only for preservation of forest land and protection of wild animal life, but for the establishment of life-giving breathing spots and healthful playgrounds for the people.

Throughout the great West are thousands of acres of government land unsuited to any industrial purpose, from which tracts must be withdrawn here and there by way of becoming national reserves or parks devoted to this meritorious and significant project. It is further necessary that each state also make into parks or reservations such of its wild lands as are unfitted for agriculture. California, among states, took the initiative in the good work, when it reserved its far-famed Yosemite Valley country, followed by New York, which has now over one million acres thus dedicated—so rapidly has spread the sentiment for preserving the best of Nature's gifts to us. Pennsylvania has now about half a million acres thus put aside, Michigan 57,000, Minnesota 20,000, and California, though the pioneer, has only 2,500 acres for such purpose. It is not a long list, neither is it an old one; the real work of forestry preservation began but a few years ago, and genuine protection to wild animal life is only just beginning.

Strangely enough, Maine, which owes its richest asset to Nature's bounty, has no forest reserve—but it should and no doubt will have one ere long.

Certainly the most important as well as extensive reserve to come under consideration is the proposed Appalachian Park, for which a bill is now before Congress. This great tract of two million acres extends along the ridge of the Appalachian mountains from Virginia to Georgia, and will give invaluable aid in the protection and preservation of the free and wild animal life in great sections now uncared for.

Fish and Game Committee Attention!

Here is some practical experience with the up-State minnow seiners so convincingly put as to need no additional comment; and an excellent suggestion which I unqualifiedly indorse.

To the Editor of Outing:

Knowing you to be a patron and exponent of the game laws, I would like to submit an idea. It concerns the seining of minnows on the St. Lawrence river. Not being versed in the law, I only know that hundreds of boatmen take out licenses to operate eighty-foot seines. Often they tie these together. They bait a small bay, an inlet or creek mouth or a shoal with bread crumbs—often in what may be called the door-yards of the thousands tagers who live there in the summer— by beating the water and otherwis

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the minnows, they comb the water of everything living. This bait is then sold by them to the itinerant fishermen stopping at the hotels.

These minnow catchers may say that they take only chub and shiners. This is not so—they take mascalonge, bass, pickerel, pike and perch minnows also in great quantities, as I have personally seen on many occasions. They sell them for profit.

The State maintains fish hatcheries at great expense and to good purpose. The question then is, why is it not bad law which allows a set of men to neutralize the work of the State, for which all pay, for their own benefit?

It must be noted, as any man who has fished the St. Lawrence river between Cape Vincent and Ogdensburg for any long period knows, that the fishing possibilities diminish yearly, notwithstanding the State hatcheries.

My own idea is that the State should license proper persons to each own and operate a twelve-foot seine. It is not possible to do much damage with a twelve-foot seine, and yet any two persons—guide and sportsman, can seine bait enough to insure a day's fishing if they only have the energy to hustle a little. If they haven't they are not true sportsmen, but merely idle people with money and no care for the real thing.

In the hope that there may be a little sporting blood found in our next Legislature, I am,

Yours faithfully,

FREDERIC REMINGTON.

I call the attention of the Fish and Game League to this question and ask its discussion at their next monthly meeting. The League is always at work for the best interests of this State's game fish and birds; sportsmen owe it deep gratitude.

Adirondack Protection Association.

It is surely a convincing illustration of the growing sentiment for forestry and game preservation, when gentlemen organize to protect State lands, which should be protected by the State itself. Recently in New York City was formed the Association for the Protection of the Adirondacks, with the idea of organizing all clubs and individuals who own or control land in the North Woods, or who, while not owning any, are yet interested in the good cause, into one forceful, united body, having a common interest in demanding intelligent unbiased legislation from Albany. There has long been an Adirondack League to help guard the tree and animal life of the great North Woods—and few New Yorkers know how much they owe to the activity and influence of these sportsmen. The new Association is an enlarged and of course a strengthened league -amply equipped to combat the combination of corrupting agents among the legislators, and a governor apparently more in sympathy with the destroyers than with the protectors of game.

Col. A. G. Mills, one of the most earnest workers in the Adirondack cause, is responsible for the new Association, which, it is proposed, shall consist of "patrons subscribing $500, life members subscribing $1,000 or more," and "active or annual members who shall pay $5 a year, no annual subscription being due from the other two classes." There are now 3,226,114 acres of State and privately owned land in the Adirondack Park, and questions of greatest importance present themselves: (1) if lumbering is to be done in the Park, and if so under what conditions? (2) if timber cutting on privately owned preserves is to be interfered with? (3) how the game can be more effectually protected? etc., etc. Thirty trustees including among them some of our most fearless champions of game and forest protection, have been chosen for the new Association, so that it begins life robustly and with the best wishes of all New Yorkers whose interest in the preservation of our North Woods is sincere.

Gov. Odell Attorney for Cold Storage Warehouse.

However praiseworthy Governor Odell's actions may be in some directions, there is no getting away from the fact that his attitude since first he went to Albany has been distinctly inimical to sportsmen and to the best game interests of the State. He showed his bent at the very outset by putting Woodruff and Babcock on the Game Commission; then he vetoed the bill prohibiting the shooting of wild fowl in their mating and breeding season—a bill which had twice passed the Legislature and been favorably reported; and just recently in his message he champions the cause of the cold storage warehouse men by suggesting "a system of bonding for such game as may remain in possession of a dealer at the close of the open season."

Whatever he may profess, I must regard the Governor as a man of too much intelligence to believe such a system of any assistance in lessening the unlawful killing of and traffic in game birds out of season. Such a system would of course greatly please the cold storage warehouse men—because it would still more impede the course of honest game protection; it would make the cold

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storage men yet more difficult to reach—and give illegal traffic in game birds such opportunity to flourish as the business has never enjoyed. It is an amazing suggestion to come from the Executive of a great State, and indicates a discouraging indifference to game protection. No governor of New York has disclosed as much.

I am wondering why the recently organized Association for the Protection of the Adirondacks chose Mr. Odell for one of its thirty trustees!

Searching the Wrong Wood Pile.

Perhaps there is nothing which more completely reveals the lack of genuine sympathy with sport for sport's sake among a considerable class of eastern Americans who affect one game or another, as their reception of an unbiased and frank opinion of the ethical conditions of a game, in which, for the time being, they chance to be interested. There are times, when a sporting principle is threatened, that I am forced to write more plainly than otherwise I should, entirely because governing officials fling themselves in a blind fury of wounded vanity, headlong into a personal campaign against the critic, instead of studying the question he raises by the light of the game's best interest. It is nothing short of misfortune to any game if its executive closes its official eyes to obvious ethical deficiencies and considers its duty done by seeking to discredit every sportsman who, in his interest in the game's welfare, dares raise a protesting voice.

Here is a minute which was spread upon the records of the Garden City Golf Club recently, and calls for attention:

"This being the first meeting of the Board of Governors since the early spring, and the attention of the board being called to the charge made by Mr. Caspar Whitney, to the effect that the connection of Mr. Walter J. Travis with the Garden City Golf Club was 'discreditable,' and the attention of the board further being called to the correspondence between Mr. Travis and Mr. Lawrence, in which it appears that a rumor has been circulated to the effect that Mr. Travis is or has been exempted by the Garden City Club from dues and obligations imposed upon other members, and this rumor being presumably the foundation of Mr. Caspar Whitney's charge, the board unanimously resolve and record that there is no foundation whatever for the charge of Mr. Caspar Whitney that the connection of Mr. Travis with the Garden City Golf Club is discreditable, but the same is false and baseless; and the rumor that Mr. Travis is, or has been, exempted from any dues, charges or obligations is entirely without foundation."

Now this is all very satisfactory and golfers will be pleased to hear that the Garden City Club exacts dues from its illustrious member, but it's a pity so much commendable zeal should have been misdirected. It shows the mistake of not keeping OUTING on file. The "charge" made by me against Mr. Travis did not concern itself with his Garden City Golf Club connection, but was that he, together with Mr. A. G. Lockwood, went south to Florida last winter, and had their transportation and their hotel bills paid in return for their golf playing and general advertising value. My comment in this matter was published in the June and July (1901) numbers of this magazine, and if the Board of Directors of the Garden City Club will turn to pages 333 and 462, they will read what I really did say, and see that their club was not even mentioned.

The Garden City Club Committee, being apparently sincere in its desire to establish the true status of its famous golfer, I commend the Florida trail as one along which there will be few blank days.

Talking Out of Court.

I am truly sorry to be forced into once again referring to this case, and should certainly not have done so had not the president of the Garden City Club made it necessary, by published references to my comment with which he appears to have been quite unfamiliar; and which a beating of drums over a side issue can not distract. Yet, as I say, I deplore being driven to plain speaking at this day, because is is not fair, it seems to me, to again drag Mr. Travis forward, considering that his Florida trip received the indorsement of the president of the United States Golf Association, and that he has not had his hotel and traveling expenses paid on a similar project since the Association, a few months ago, passed a rule forbidding such profitable junketing to an amateur.

There is no doubt of the hotel and transportation expenses of Messrs. Travis and Lockwood having been paid, but by not condemning the offending golfers the president and his Association Executive Committee tacitly approved them, and by so doing assumed all responsibility for whatever offense there was. Even though the Associa-

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tion officials had not countersigned the little expedition into Florida, the amateur status of neither Mr. Travis nor Mr. Lockwood could now be legally assailed, because the rule passed subsequently forbidding such trips is not retroactive. Therefore, let's have done with it, or, if club committees seek diversion, I suggest they draw up a memorial to be presented to the present official incumbents of the U. S. G. A. when they retire this spring. Surely nothing less substantial could express the real feeling with which sportsmen will view their official passing!

New Blood for the United States Golf Association.

The annual meeting of the United States Golf Association will be coming off shortly; if any of the delegates has had his ear near the ground, he has heard enough to make him at least thoughtful. Usually the delegates take nothing seriously save themselves, but this year it behooves them to give the golfing outlook deep consideration. The truth is, that the U. S. G. A. has become little else than a figurehead, and not an especially pleasing one at that; it has degenerated into a close corporation which exacts a $100 annual fee of the twenty-six clubs permitted to have a voice in the direction of its affairs, and $25 from one hundred and seventy others for the privilege of attending the yearly love feast and sending entries to the championship, which the Association is good enough to allow played under its rules. Beyond granting dates for the championship events, the U. S. G. A. appears to consider it has no duties, and is the most indifferent body that ever governed a sport. Only the high average class of the men interested in the game has kept it in line and moving. If the Association is to attempt national control, it should be national, and diligent and alert, instead of provincial and supine and indifferent as it has been in 1901.

The president should be chosen with great care. He should be strong, broad and determined—a man like Mr. W. B. Thomas, who, unfortunately, declined another term of office last year. The U. S. G. A. needs a president who does not sit passively awaiting things to come his way, but is vigilant and thoroughly in sympathy with keeping the game healthful. The administration of 1901 reflects no credit upon either the officers or upon the Association. New blood is very much needed and imperative if the U. S. G. A. is to thrive and fulfil its destiny. Otherwise its days and usefulness are numbered. There is no reason why an amateur golfer, member of a good class club, should not be eligible to compete for the national championship. But I see no reason why, in order to be eligible, his club should belong to the U. S. G. A. That would be a cumbersome arrangement. There are fifteen hundred golf clubs in this country, and it would make an unwieldy business, indeed, if they all belonged to the U. S. G. A.

Organization on Geographical Lines.

The solution of the problem is organization on geographical lines, which has been making headway, despite the cold water thrown on it in New York and in Boston. There should be sectional organizations taking in the New England States, for example, the Middle Atlantic, Southern Atlantic, Alleghany district, Middle West, Middle Northwest, Middle South, Southwest, Rocky Mountain district, Northwest, Pacific Coast, etc., etc. Each should have its organization, officers, dates of championships, and have entire control of its especial district. With such organization perfected, as it well can be, if given official encouragement, the delegates to the annual meeting of the U. S. G. A. should be from the sectional bodies, and not directly from clubs, and their votes govern for the general welfare of the game. This would return the Association about as much money as it now receives in dues from its allied and associate members, or at least as much as it would need to conduct the annual championship; and beyond all else, it would give the Association a real national significance which now it has in name only.

Something of this character must be done else the U. S. G. A. will lose both prestige and members, for a great majority of the latter are becoming impatient under the toll exacted for the mere privilege of sitting by and listening to the metropolitan solons of this body. Besides, the western clubs, which are many in number and of increasing strength, must have recognition, and on a different basis from that which now is only possible.

Another thing the U. S. G. A. should do at its forthcoming meeting is to appoint a committee whose province it will be to interpret rules and unravel golfing legislative problems.

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Official Golf Balls. There is bound to be some discussion as to the advisability of making a choice of an official ball between the solid gutta percha and the rubber filled, but it seems to me as if at this time sufficient test had not been made for such a step; and such a step must not be taken hastily, for if choice fall upon the newer ball, it may mean the rearranging of golf courses. In England the gutta is still preferred, and it does appear as though we are yet in the experimental stage, and should make haste slowly.

Golfing Elect of 1901. It is suggestive of golf's development beyond the present constitution of the U. S. G. A., that many sectional and state leagues already give annual championship tournaments. Purely as a matter of record, if for no other reason it will be interesting to publish here the names of those golfers who won the championships of 1901.

National amateur, Walter J. Travis, Garden City Club; Western, Phelps B. Hoyt, Glenview; Metropolitan, Findlay S. Douglas; Philadelphia, W. Poultney Smith, Huntingdon Valley; Boston, L. P. Myers, Yale; All-Florida, Dr. L. L. Harban; Southern California, Walter Fairbanks; All-California, J. A. Folger, Oakland; Inter-collegiate (Eastern), Herbert Lindsley, Harvard; Interscholastic, Pierre A. Proal, Blake; Central New York, J. G. Averil, Rochester; Lower Lakes League, Walter Powers, Rochester; Canada, W. F. H. Kerr, Toronto; Trans-Mississippi Association, John Stuart, Des Moines; Connecticut, Charles H. Seeley, Wee Burn; Wisconsin, Hamilton Vose, Milwaukee; Colorado, Frank L. Woodward, Overland Park; Maine, Harris B. Fenn, Poland Spring; New Jersey, Allan Kennaday, Montclair; Iowa, Robert H. Finkbine, Des Moines; Indiana, L. Lillard.

Among the notable tournament winners of the year were, A. G. Lockwood, William Holabird, Louis Livingston, Jr., E. M. Byers, C. Hitchcock, Jr., C. B. Macdonald, W. C. Carnegie; R. C. Watson, Jr., F. R. Cooley, T. T. Reid, Howard Giffen, Jasper Lynch, Arden Roberts.

Of cup winners, among whom are some of the best players in the country, were Walter Egan (runner-up Amateur Championship), Howard A. Colby, Percy R. Pyne, 2d, William Waller, C. M. Hamilton, John Reid, Jr., A. M. Brown, H. K. Hill, W. Hale Thompson, W. L. Glenny, Daniel Chauncey, Howard F. Whitney, A. DeWitt Cochrane, F. O. Reinhart.

Excellent Dog Show by the Ladies' Association. Great credit is due the Committee for the success of the Ladies' Kennel Association's first show; and to none of its members more than to Miss M. K. Bird, who though not much *en evidence* about the judging rings, fulfilled her arduous and important duties in the council room with admirable diligence and good judgment. It was a strong committee, which, besides Miss Bird, included Mrs. James L. Kernochan, Mrs. J. J. Vatable and Mrs. D. W. Evans; I may add an exceptional four, who distinguished themselves from the average committee of the gentle sex—and from a majority of those composed of the opposite sex for that matter—by doing rather than by talking. And it was a good show, infinitely better than the one in Philadelphia the week or so previous, and up to any in the country except that of the Westminster Kennel Club—which of course is the first one of America. That the Ladies' Association (why I wonder when the women organize for one purpose or another is the word "ladies" always used instead of the much more significant "women,") cleared expenses in the week preceding Christmas, promises great success for their 1902 show—which will be held the latter part of October.

As was to be expected the showing was strongest in terriers and spaniels, including toys and bulls, and in fox and Irish I have seen no exhibition which averaged a higher quality. The bulldog exhibit was weakened materially by the refusal of the Bulldog Club to show under the judging of Charles H. Mason, whose appointment was one of the few mistakes the Association made. It is undeniable that Mr. Mason's judging has given much dissatisfaction, and that the intimate association of his magazine business with his official duties, has made an unfavorable impression among dog fanciers. Whether or no this does Mr. Mason injustice I do not pretend to say, but I do say that a solicitor of kennel advertisements and a bench show judge should emphatically not be one and the same individual.

Of hounds the showing was poor, both as to numbers and average quality, the bloodhounds being distinctly bad in type and

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condition. We do not appear to be even a good second to England in this kind of dog. The great Danes although few in numbers were high in quality as they always are where the Montebello Kennels exhibit; this kennel has not only the best Great Dane blood in America, but is breeding the highest type of puppy; and that is more creditable than buying prize winners. The toy classes were all very full and most of them very good, and pleasing to those who care for them—the notable entries being Nubian Rebel, a Pomeranian, and Rollo, a Blenheim.

Encourage the Beagle. There was quite a lot of beagles, some of them sweet, and some weedy. The tendency among native breeders appears to be turning out a bigger, coarser dog—one that stands a perceptible bit higher than the English type, and is not so thoroughbred looking, however good strain it may actually be. The judge appeared to be somewhat confused by the two types, and not at all certain as to which one he preferred, either in or out of the official ring. Even though there may be slight variation in type I am glad to note the increased number of beagles which are annually being bred in America. If ever there was a sweet, companionable sporting dog, it is this creature of the silvery voice. We are only just beginning to really appreciate the worth of the beagle, and the trials last autumn showed a great advance in the quality of the entries and in their handling. There is not much better sport than a run after beagles, and I am glad to note the new packs that are being established. Yale has recently set up a beagle pack, and the good example at New Haven should be followed by the students of Harvard, Princeton, Pennsylvania and the others, because aside from the sport, it is a developer of just that department of athletics, cross country running, in which we are weakest. By all means let the beagle make his way encouraged on all sides. He is worth loving on his own account, and, moreover we need him.

American Bred Dogs. But the dogs which loom most prominently in one's memory of the show are Mallwyd Sirdar, a superb English setter recently imported, by Mr. G. C. Thomas; Champion Endcliffe Bishop, a fine field spaniel from the Swiss Mountain Kennels; Abertay, the Craigdanock Kennels Scotch terrier; Mrs. James L. Kernochan's Irish terrier Inverness Shamrock; Mrs. R. F. Mayhew's fox terrier Hands Up, and the black poodle Milo-Fils, with which Mrs. Henry G. Trevor won the Ballyhoo Bey Challenge Cup offered by Mr. William C. Whitney for the best American-bred dog of any breed shown by a member of the L. K. A. Perhaps it is because poodles do not appeal to me, but certainly my choice for this cup would have been either Hands-Up or Inverness Shamrock or both in preference to Milo-Fils, which certainly was not so well turned out as either of the others, and nothing like so well groomed as the poodles on the Continent.

Not only was Inverness Shamrock well turned out, but all of Mrs. Kernochan's kennel were shown in splendid condition, as was also the champion Hands Up; the amateur dog fanciers will do well to take a few hints from the workmanlike and thoroughly sporting methods of these two ladies, Mrs. Kernochan and Mrs. Mayhew, who in my judgment have made the two notable successes of dog breeding in America.

For me, the dogs of the show were Mallwyd Sirdar, Inverness Shamrock, Hands Up, and a sweet beagle of the Windholme Kennels, the name of which I cannot recall.

Speaking generally the condition of the dogs averaged fair and in many cases was exceedingly poor; it is one direction in which American fanciers need plenty of coaching.

The mastiffs and St. Bernards were indifferent in average quality; and that grand animal, the Newfoundland, represented by only one or two good ones. The mastiff I observe is losing type; his face is getting to be that of a big bulldog. And it is not a change for the better.

Cutts of Harvard a Professional. The recent disclosures of O. F. Cutts' professionalism were startling; not so much because he had successfully concealed his offense, as that in full knowledge of the seriousness of the deception to two great universities, he should have wished to do so. Knowing he had been paid money for giving boxing lessons, and that he was therefore ineligible to any amateur game, he not only pledged his word falsely to the Harvard Athletic Committee, but allowed that Committee to pledge its word falsely to Yale. 'Twas a pretty stiff price to pay

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for the pleasure of helping Harvard win its most important football game. There it is —the curse of the frenzy to win—to win, win, win, win, that is hammered into the heads of our college boys, until there is no love of the game for its own sake left in them. This is why I am irrevocably opposed to preliminary training seasons, to professional coaches, and to all the cursed "business" of college sport, which neutralizes its wholesome, strenuous value, and makes for that madness of sport for the sake of winning rather than sport for the thrill of a game honorably and vigorously contested.

There is no comparison, as I note has been unwisely made, between the "Cutts case" and the "Glass case;" the amateur status of Mr. Glass was never doubted; his was merely a question of complying with the one year residence rule, which Yale, by withdrawing him from her important games, very rightly insisted he should respect.

There is of course no doubting the good faith of the Harvard Athletic Committee, but the Cutts denouement proves again the old saying, that where there is so much smoke there is sure to be some fire, and suggests to the Harvard and to all other college athletic committees, that a student whose eligibility is not perfectly clear should be denied the privilege of representing his university; it is infinitely better to lose, even unjustly on occasion, an important player from a team, than to run the chance of besmirching the fair name of the university.

Harvard must now make the *amende honorable*. Whether or no she would have beaten Yale without Cutts, does not enter into the question—personally I believe Harvard would have come out of the game victorious, though with perhaps a lower score had Lawrence been played at tackle. but that is neither here nor there; the fact is she grossly violated the rules by playing a professional on her team, hence the Yale and the Pennsylvania game records must be cancelled and the trophy footballs returned. Harvard cannot afford another mistake by failing to make her reparation prompt and complete.

Harvard's margin of superiority was so large that her ranking is not affected by this unhappy conclusion to an otherwise highly creditable season—but I withdraw Cutts from the All-America Eleven of 1901. This will send Bunker (West Point) from the substitutes to the regular line, and I choose Goss of Yale to supply the vacancy left by Bunker's promotion.

American Polo Team to Play at Hurlingham.

At last we are to have a return match for that polo Challenge Cup, which a Hurlingham team won from us at Newport in 1886. The team which lost that day was composed of Thomas Hitchcock, Jr., still rated among our best though he has not played for several years, W. K. Thorn, who spends most of his time in France hunting and automobiling, R. R. Belmont, who died a few years after the match, and Foxhall Keene, then a Harvard freshman, but now the most skilled all-round sportsman in America.

We were very new at the game then, and were overwhelmed by the team work of the Englishmen who were ably captained by Mr. (now Sir) John Watson; and though our improvement has been very great, team play still remains the most formidable factor with which our representatives will have to contend on the Hurlingham field next May. And yet I am not so sure the English rules, under which the match is to be played, will not prove even more disconcerting, because under these rules are allowed the hooking of mallets and offside play—both strange to the American game. Despite the handicaps, however, my faith in the American four's winning, is very great. Our players are cleverer, think and act faster, and our ponies are quicker and handier on the whole.

The team will be captained by Mr. Foxhall Keene, the first player of America, Messrs. J. M., Jr., and Lawrence Waterbury, R. L. Agassiz and John E. Cowdin—will supply the remaining three members; when finally chosen the team will be the very strongest America could muster; and Keene, Agassiz and Cowdin have played on the other side and therefore encountered the offside and hooking mallets style of game. Keene and J. M. Waterbury are rated at 10 goals each on the American Polo Association handicap list, Cowdin and L. Waterbury at 9 and Agassiz at 8.

Twenty-three ponies have already been shipped to England, and these represent the very cream of polo horseflesh, Messrs. Clarence H. Mackay, George Gould, H. P. Whitney and A. G. Vanderbilt having most generously and with praiseworthy sportsmanship contributed from their fine stables.

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American Standard Cavalry Mounts Too Low.

It seems to be a fact that in the great effort England is making to furnish her troops in Africa with remounts, she is not looking our way for any very notable part of the supply for which the horse-breeding districts of Europe are being drawn upon. With all the facilities we have for raising cavalry horses, yet it is true our own troops are not supplied with an animal averaging so high as used in almost any European service. We export nearly four million dollars worth of horses, but they are largely draught animals. In Europe, where are forty-three million horses of all kinds, or twice as many horses and mules as are to be found in America, breeding cavalry horses is a tremendous industry. Russia, of course, raises more than any other country, Austria-Hungary being next, but none are exported. Yet despite the extent of the industry, the European demand greatly exceeds the supply.

A great opportunity is thus lost by American stock raisers who have never appeared to think there is money in breeding the better grade saddle horse, in the very face of the fact that prices for the really good grades of horses have been rising steadily for ten years, while prices for the second and third grade animals have barely held. There is money for the American breeders that will devote themselves to raising only first class saddle horses suitable for cavalry. After viewing the class for horses "suitable for cavalry mounts" at the last New York horse show, no one will deny that we are a long way behind the European standard.

The sale at the Garden after the show proved that, notwithstanding the automobile, there is a continued demand for really good driving horses.

Mosquitos and Malaria.

The writer of an article on mosquitos in the last August OUTING stated that investigations at Johns Hopkins University had shown it to be possible for the malarial mosquito to acquire the malarial fever parasite without having bitten a patient having the fever. The author believed the information given him accurate, but, Dr. W. S. Thayer, associate professor of [illegible] Johns Hopkins, says there is [illegible]nce to show that the only way [illegible]n acquire the malarial parasite [illegible] malarial patient. Dr. Thayer asked the questions, in a recent paper before the Congress of American Physicians and Surgeons, "Can the mosquito acquire the infectious agent only from man? would the mere removal of all cases of malaria from a given region eliminate all source of infection?" He answers by saying that the evidence which we now have tends to favor an affirmative reply. "Are we, then, to assume," he says, "that, in a wild and sparsely populated tropical region an intermediate part must always be played by man? This seems, at first, hard to believe. And yet it would be rash to express oneself too positively before careful investigations have been made with this point in view. It is often surprising to find how firmly baseless impressions become fixed upon our minds."

Criminal Shooting Accidents.

Until a law is enacted making criminal offense of these accidental shootings of a hunting companion, they will continue to multiply. Conviction of manslaughter and a period in the penitentiary for one of these gentry that mistake a companion's head for a deer, or his back for a bear, would cause an amazing reduction in the number of sad accidents which happen each season. It is not a job for the fool killer, but for the law.

An Interesting Experiment at Albion.

That is an interesting and important experiment which Albion College is making in financing college athletics. And it seems to be also a successful one, for since its adoption, Albion has wiped out an old debt, gained (as a gift) a fine field, which it has equipped from current funds; has employed a permanent Physical Director, who holds rank as a member of the faculty; and has won the Michigan Intercollegiate baseball and football championship. The plan, as they have carried it out, appears to be ideal in securing the best results in athletic administration, and in avoiding politics. Briefly, the plan consists of an Association which every student joins, and pays $3 a year; there is no admission fee to games charged members, and the income of this Association supports the athletics of the college. Legislation is in the hands of a Board of Control, which is made up of, five elected by the students, two by the faculty, and one by the Board of Trustees.

For small institutions it appears to be an excellent arrangement.

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THE GAME FIELD

By Edwyn Sandys

UP to the time of this writing, the weather conditions in the best game districts of the East and Middle West had been as favorable as the most ardent sportsman could well desire. This means that all kinds of non-migratory feathered game, especially quail, have enjoyed easy times and an abundance of food. This further means that when the pinch comes, which it is almost certain to do, the birds will be in fine condition to endure any ordinary amount of privation. In the case of the quail, this is a most important matter, for there is a deal of truth in the saying that a fat quail with a full crop does not know how to freeze. While city men, as a rule, can do but little to insure the winter care of the birds, the residents of towns and villages can do much. To men so located, a visit to the winter coverts entails no greater hardships than a short drive and a trifle of brisk walking. No man worthy of the name of sportsman will begrudge this slight expenditure of time and trouble. All that the quail require is an abundance of food during periods of deep snow; a few sacks of cheap grain rightly placed will save many a bevy.

Any properly informed country sportsman knows where the birds of his district are wintering, for the simple reason that he has shot over the ground until the beginning of the close season. The remnants of the bevies will spend the winter on or very near the ground they occupied at the end of the shooting season. After the first heavy snowfall, the birds' tracks will betray the favorite foraging grounds, and thus tell where the grain should be placed. There is little use in tipping country lads to feed quail that hang about the stacks and barnyards. Such quail are all right, and will take precious good care not to go hungry if there's anything worth eating about the place. It's the outlying birds—the ones 'way down at the back end of the farm, in the remote thickets and under the brushy fences—that require assistance; and as they need but little, they should get it. Tip the farmers all you have a mind to; it can do no harm, and it may do good, but the wise man knows that when he wants a thing properly done, he had best do it himself. I dwell upon this question of winter care, because it is the easiest and best method to insure good shooting the next season. It is the cheaper way, too, for the cost is hardly worth reckoning, while to purchase birds at a distance and bring them on for restocking, is a much more expensive and at the same time a less reliable method.

The editor of *Shooting and Fishing*, in a recent issue, criticises the editor of this magazine for objecting to telescopic rifle sights for use on game. As that criticism possesses the rare merit of being reasonable in tone and courteous, and also the opinion of a gentleman who knows a deal about rifles, a sportsman's comment should do no harm. In the first place, I think that the real charm of the pursuit of big game lies in the matching of craft against craft, rather than in the mere killing of the beast. The telescopic sight, while it possibly may enable a man to kill more game, does not encourage the development of that invaluable hunter-craft which made the fame of the greatest hunters this country has ever known. In fact, the use of the telescopic sight encourages a man to blaze away at game before he has half earned a sportsmanlike right to the shot. In the East, the chief advantage of such a sight will be found in long shots across ponds and small lakes, and long-range shooting across water is dangerous work when many hunters are in the opposite woods. On open plains, like the antelope ranges, there is no desirable gain, for the best the sight can do is to lower what should be the cleverest of stalking, to the level of long-range target practice. In the mountains, the worst feature of the sight is that it tempts a man to shoot at game, which if dropped in its tracks, or mortally wounded, will never again be seen. It is an easy matter to squint through a telescope which sharply defines a distant quarry, but it may prove a very different matter later to climb to the spot where the game went down. It is anything but sportsmanlike to drop game upon some inaccessible ledge, or crest, or across some impassable ravine, yet this is precisely what the man using the telescopic sight is apt to be led into doing. Furthermore, the clearer view encourages the taking of chances at extreme ranges, which necessarily means inaccurate shooting and more animals wounded by badly placed lead, for the telescopic sight does not lend power to more than one nerve, nor steadiness to nervous hands.

THE trend of the latest types of sportsmen's shows appears to be directly toward the extinction of such catchpenny affairs. What

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sportsmen and all interested in *sport* desire to see is an instructive and interesting show kept within the limits indicated by its name. Exhibits of arms and sporting goods and of anything directly bearing upon sport are all right, but anything beyond that is undesirable and out of place. A genuine show, properly planned and carried out, needs no clap-trap to make it interesting.

THE variation in the antlers of the caribou does not appear to be rightly understood by many sportsmen. Not long ago a Detroit gentleman asked me to purchase and forward to him what I considered to be a really fine mounted head. It happened that there was a choice one for private sale, so it was purchased at a fair figure and duly forwarded. It was one of the prettiest of all the heads I have seen—in fact it was a great attraction at an exhibition a few years ago—so I considered the recipient a fortunate man. In a few days there came a cheque and a note of thanks, which also said, "while all sportsmen who have seen the head admire it, they agree that it would be greatly improved by *even* horns!" Even so, how odd would be an even head of any size. I do not recall one fine head which had the two main branches alike, and I have yet to see a large head show that symmetry which is so characteristic of the antlers of the wapiti.

THE tremendous annual destruction of spruces and firs to supply the demand for Christmas trees is a matter of no small concern to sportsmen; for every good sportsman is interested in forestry. While no right-minded person would think of marring the pleasures of that all-important day, a great many sound thinkers are opposed to the unnecessary sacrifice of young wild trees for the purpose. Hundreds of thousands of young trees, which if let alone would eventually make valuable forests, are now foolishly destroyed; and there is no real necessity for their use. Well-made artificial trees could not be distinguished from the genuine article, and would better serve the purpose, as they could be manufactured of the most desirable sizes and shapes and, most important, of non-combustible materials—in fact every tree might be its own electric, gas, or candle fixture. It seems to me that big money might be made in this direction, and vast public benefit result from the preservation of young timber. The perfect imitation of any suitable tree would be a mere trifle to American ingenuity.

SPORTSMEN who are troubled with a dread of venomous snakes will be interested in the latest remedy for snake-bite. Never mind looking toward the decanter—this is different. It is mentioned in the London *Lancet* as the discovery of Dr. Calmette. According to report, it has performed a wonderful cure in the case of an Indian coolie woman who had practically expired from snake poison, supposedly owing to the bite of a cobra. One injection of the remedy, antivenene, restored the woman to consciousness and a second completed the cure within three hours. If the snake was a cobra and the cure as described, the remedy should easily overcome the venom of our deadliest snakes.

JUDGING from some reports lately to hand, a lot of deer are illegally killed in the Adirondacks by men who are paid to supply lumber camps. This same evil exists in all lumbering regions, and an efficient remedy for it is not easily found. The camp hunter's usual method is to kill throughout the winter and hang his deer in certain secret places, from which he can bring in meat as required. To have dead deer too near camp would be taking too many chances, for an inquisitive stranger might happen along any time. Hence the deer are hidden at various points to which the meat supplier can make his way by craftily selected routes. All skinning and cutting up is done away from the camp, and it is no easy task to run the culprits down, especially as the lumbermen want the meat and are not at all eager to expose the source of supply. I remember once in Michigan woods running down one of these camp hunters. He had sent word that he knew where a bear was denned, so I started very early the following morning. He had not expected me before the following day, so when I reached the camp about mid-morning, he was in the woods. Thinking that he possibly might have gone to the den, I hit his trail and about noon overhauled him. In the snuggest of dells were hanging half a dozen skinned deer of recent killing and my lad was busy breaking one up. He looked a bit sheepish, but finally explained that such work went on near most large camps. As he knew I wouldn't squeal, he finally led the way to a hut in a ravine where the hides were stored. He told me that was his way of making his winter's living, and he knew of several others in the same line of business. That identical business still goes on in the lumber country, and the only way to stop it is to fasten the responsibility where it

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rightly belongs—on the shoulders of the bosses of the camps.

THE lesson of the past big game season appears to teach that after all is said and done, the best rifle for all-round work in the woods is the one of large caliber and limited range. My first deer hunting was done years ago in Michigan woods, and the natives used to laugh at my gun. It was a high-grade, fourteen-gauge muzzle-loader, and the lead was a soft ball run in a mold made for the gun. Held right, it would drop a deer in his tracks. While its range was necessarily short, it was long enough for all ordinary work in heavy timber, and before long the natives ceased laughing at the gun and tried to borrow it. It was seldom loaned, because I knew they would shoot buckshot, which is not to be tolerated. Later, I got a repeating rifle, a .44, which was an excellent arm. Still later, the .45 was adopted, and it proved right. The last of all was a .45 equipped with a shotgun heel-plate, and this has rendered the best service of all, especially for quick work. Its range is limited, which greatly lessens the chance of boring a hole through some poor fellow 'tother side of a township, while a ball from it, properly placed, is an argument which few moose, caribou or deer can prolong, let alone withstand. The perfect sporting rifle would combine a flat trajectory with a limited range. This has not yet been produced. Could I have any kind of sporting rifle for the asking, the request would be for a 45-caliber repeater, a flat trajectory and a two-hundred yard range. The use of such an arm would mean comparative safety to other hunters, it would demand genuine hunter-craft on the part of the man carrying it, and it would mean that game hit in the right spot would stop there or in the immediate thereabouts.

According to the Boston papers, the close of the big game season found the market overloaded with deer, a choice buck selling for 12½ cents the pound. This would suggest that a great many men had tried to square the cost of a sporting trip by bringing out deer for sale.

THE value of big game to a State like Maine is a matter which few outsiders rightly understand. A recent estimate places the number of deer killed by visiting sportsmen and residents at the astonishing figure of 25,000. Allowing one-fourth of the total to visitors, and that it costs, all things included, $100 for each deer, the outsiders must have chipped in $625,000. Cut that in half, and there is quite respectable pickings left. The same estimate allows $40,000 as the value to the State of the moose crop, as far as outsiders are concerned. Add to these figures a fair sum for the contributions of resident hunters and it is easy to understand what a gold mine Maine has in her game. And still a set of shortsighted farmers rail against the game laws, and complain of the ravages of the deer among the crops. It seems to me if I were a farmer up there, I'd *bait* the deer with any crop they'd stand for, and make my good money furnishing sport to men who had the price. There is, too, an ominous growl among sportsmen that Maine is growing greedy in the matter of trying to squeeze the visitor. It isn't always good business to drive a free horse to death, and the horse in this instance, if not actually driven to death might easily be driven due north and over the boundary. Once make Maine so expensive that a man can save money by going on into Canada, and into Canada he will go "as sure as shootin'."

THE latest atrocity committed by that irrepressible foe of all sportsmen, the market hunter, is the slaughter of wapiti for the two tusks! Think of it—for the sake of a pair of miserable teeth, there are men who will butcher grand brutes and leave the carcases to rot upon the ground, and this in America, mind you, and not Africa, and the reason for it—because a secret society of the "Elks" has the tooth as its emblem, which makes a pair of teeth (really worth nothing) command a price of from about three to five dollars. Many "Elks" whom I know are rare good fellows, and not a few of them good sportsmen. The society would do well to insist upon the wearing of artificial teeth by qualified members.

REPORTS from Maryland waters tell of plenty of fowl and excellent shooting at most of the well-known points. It appears also to be an excellent quail season. A letter just to hand from San Francisco spoke of rattling good sport on the Pacific side, so the winter tourists should find plenty to do. The only unfavorable report to hand came from North Carolina, where the quail crop is said to be extremely poor, owing to a most unfavorable breeding season.

RESIDENTS of British Columbia are agitating for a game protective association, and many of them have declared for a rigid observance of the game laws. The northwesterners will do well to get to work in time. They have a grand province and much game, and wise action now will eventually insure to them the best all-round shooting on this continent.

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SOUTHERN ANGLING

WHERE TO GO AND WHAT TO CATCH

By William C. Harris

"The American Angler."

TO those who are looking for pastures new and with whom the expenditure of time and money is not a factor in an outing, I would suggest a trip to Tampico, Mexico, when in February, in fact, all the winter through, fishing for tarpon and other large fish is unusually fine, particularly at the mouth of the river opposite the city. Enormous sawfish are there, some of them fifteen feet long, and the fishing for jackfish (a close brother to the "yellow-tail" of the Pacific coast) is phenomenal, the fish varying up to four feet; the smaller fry, such as red drum of ten pounds, black spotted sea trout of five pounds, and the voballo or the crevalé of similar weight, are as plentiful as minnows in a rivulet's runway. Fair accommodation, we hear, can be had at La Barra, which is the watering place for Tampico and vicinity.

Coming north and to the eastward, the angling tourist should halt for a few days at the quaint old town of Corpus Christi, where the "Silver Kings" are found in adjacent waters of large size and in numbers; in fact, the largest tarpon on record (213 pounds) was taken on hook and line in that vicinity.

Passing still farther to the eastward, the angler will reach, in an hour or so from Corpus Christi, the well-known tarpon waters of Aransas Pass. All that has been written of this grand tarpon field has been verified by a personal visit of the writer extending over months, during which it was not unusual to see nearly every day six to ten tarpon leaping, at one time, into the air, either in disport or in the struggles of capture. In the Pass, the tide ebbs and flows at wild speed, and the boats of the fishermen are anchored on or near the edges of the relatively shallow bars. The line is cast fifty to one hundred feet out upon the rapid waters, where the lure is taken by the tarpon on the surface or slightly below it, with a dash, the leap following instantly upon the fish feeling the tension of the line. These aerial flights are repeated five or six times, each consecutive leap exhausting more and more the strength of the fish. The continued leaping of a hooked tarpon I judge to be the pure effect of fright and not solely efforts to throw the hook from its jaws, which would seem to indicate that our "savanilla" is better equipped with nervous system than many other game fishes. belief is based upon the fact that when fishing for minor fish with light tackle, tarpon have repeatedly taken my lure, and at the first surge made by the fish the light leader was broken and the tarpon free from restraint. Despite this fact the Silver King leaped four or five times consecutively with a part of the severed gear hanging from his mouth. Under this frantic excitement of fear they invariably headed toward the Gulf and were seen no more in the estuaries; at least no record exists of their ever being caught with fragile and broken gear in their jaws.

Leaving Aransas Pass, of which Tarpon is the postoffice, the angling tourist will continue his eastern progress, halting at New Orleans for the excellent fishing for "green trout" (large-mouthed black bass) and the salt-water species that are taken in adjacent localities, particularly at Chef Menteur, twenty miles out, where sea trout, channel bass and sheepshead abound. Those who are fond of luring black bass (large-mouthed), white perch and strawberry or calico bass (usually called "bream" in the southern states) would do well to stop off at Eutaw, Ala, on their tour eastward to Florida waters, or at Biloxi, Miss, where there is grand fishing for all species (large and small) of the Gulf habitat.

Passing to the southeast, if the rodsman is fond of deep-water fishing for red snappers, he would do well to halt at Pensacola, twelve miles from which city the celebrated snapper banks are located; these furnish the bulk of supply for our Eastern markets. Around Pensacola, bayous abound in which nearly all the Gulf species can be taken.

Around Cedar Keys, particularly at Isola Bella (Beautiful Island), good fishing can be had; and further on to the southeastward, the Homosassa River, as far up as its sources, the great springs—in which tarpon may be seen disporting sixty feet below the surface, so crystal clear are the waters—furnishes excellent fishing, particularly to the light rod and the feathers. At the town of Homosassa and from the pier of the hotel, as many as thirteen different species of salt-water fishes have been taken with artificial flies by one rod in a morning's outing. The fishing localities of the west coast from Tampa to Key West and those of the east coast of Florida from Jacksonville to the same point are briefly referred to on another page.

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The ambition of every angling tourist is so centered upon catching a tarpon, that many of them when visiting southern waters, neglect the sport furnished by smaller fishes on comparatively light tackle. We know no grander or more fruitful pastime with the rod than surf fishing for channel bass, mostly called "red drum" in the South. The fish abound on the west coast of Florida, in fact, all along the north shore of the Gulf, on the west south to Tampico, and doubtless, are found in equal numbers in all Mexican waters, and those of the Isthmus. The customary method of fishing for them is to wade waist deep and cast from the reel, so that the lead falls just beyond the curl of the outer breaker. The breaking foam of the surf-rollers will often envelope your body, saturate your clothing (generally a bathing suit), and many times at the same instant, a drum of twenty pounds or more will seize your mullet bait. If this happens, the result is simply the "survival of the fittest." You find yourself fighting the fish and fighting the breakers at one and the same time, and the combat resolves itself into one of brawn, the sturdy fins frequently gaining the victory. In this contest the strongest man can only hold his own for an hour or two, which period, however, brings an ample harvest, if only two or three of the bass are killed, as their flesh is delicious and their fighting qualities almost incomparable.

With a six-ounce tournament-built split-bamboo rod, a No 9 cuttyhunk line, 1-0 hook, gimp-snooded, and mullet bait, the lady or bony-fish, a big-eyed herring, is certainly the peer of any fish of its size in waters wherever located. This fish is a near relative to the tarpon, and from that fact its game qualities may be considered hereditary. It is found along the northern shores of the Gulf and on the east coast of Florida, and here and there a straggler comes as far north as Buzzards Bay, Mass. The lady-fish, when it feels the restraint of the line, is out of the water on the instant, and repeats so quickly and continuously that a brother angler described its actions vividly when he caught his first specimen and said to me, "That fish is dancing on his tail." This peculiar action is shown no matter on what tackle it is caught. When trolling with a large spoon or restrained on a delicate fly rod, it gyrates all the time. There is another known as the "bone-fish," which is seldom taken in waters other than those of Biscayne Bay, Fla. It is said to surpass the lady-fish in acrobatic prowess.

One of the most pleasurable outings in Florida waters is had on a fleet sailing yacht, trolling for Spanish mackerel. These fish frequently enter shallow waters, feeding upon small fry, particularly in the pockets made by a rising tide along the beaches of the Gulf. When they are found under such conditions they afford invigorating work, with delightful sensations, if captured on an eight-ounce rod, and a large bright fly, reinforced and snooded with ductile wire. But is it infrequently that they are found along the beaches or in the mouths of the passes, so that trolling for them is the only certain method of making a good score. From the stern of a free-going yacht, a dark mottled pearl squid at the end of a hundred feet of line, is the most attractive lure. I write "dark mottled squid" advisedly, as a recent experience convinced me that it was more effective than the usual silver colored pearl lure, and decidedly more so than the ordinary lead squid used for blue-fish or large weak-fish.

The sheepshead may be said to be ubiquitous in the shore waters from New Orleans to Key West, and from thence north to the St. Johns River. They seldom weigh over six pounds, while those caught in the North are not often so light in weight. In Florida they are seldom eaten, but often used as baits for sharp and saw-fish, and as a rule, are looked upon as pests by rod fishermen when angling for what they deem to be choicer fish. The sheepshead is a vigorous biter and is excessively fond of the fiddler crab, which is the universally used lure. These little crustaceans swarm along the shores of the creeks or bayous in the South. I have seen them so numerous that every footstep unavoidably crushed dozens of them.

The spotted sea trout or southern weak-fish, a close brother of our northern weak-fish, squit or squeteague, is found almost everywhere in the shallow waters of the Gulf and comes in great shoals into the mouths of passes or inlets, where they voraciously take the mullet or live minnow baits, as well as a gaudy artificial fly. They also run into the shallow beach pockets at high water with their dorsal fins above the surface in their eagerness for food—minnows that seek the shallows for protection from their eager enemies.

There are no greater fighters than the snappers of which there are several species in southern waters, the greatest of which is the mangrove or red-spotted and the gray snapper with lightish spots. Both of these fish

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call for great skill in boating as they are apt, when hooked, to seek the protection of the mangrove roots so thickly found along the shores where these fish are most numerous. A sturdy rod and strong water gear is necessary to dislodge them from their retreats.

ANSWERS TO CORRESPONDENTS.

From time to time queries come to me from young anglers, as well as from those of experience and honored years, all of whom seem to infer that a disciple of the art, whose angling life is now being "rounded up," should be able to respond to any queries, and they sometimes take the form of conundrums, as to the habits, habitat, traits and idiosyncrasies of every creature that flirts a fin. Only the other day a letter was received from an observant and ardent angler, in which was the query:

"Can fish talk to each other?"

Watch a stickleback, a warrior mate, for he is a knightly one with his bony cuirass and spears of acute spines, when he takes his position as guardian outside of the elaborately constructed nest. Every now and then, he will be seen to approach the nuptial couch, and his little head will bob up and down as if in conversation with his mate—the "yes" or "no" or the "how are you this morning, dear?" in fish talk fashion—and then this doughty gasteroid will give that propeller-like tail of his a hundred revolutions to the minute and dart around and away to combat with spawn-eating foes, real or imaginary.

Note a vast school of herring or menhaden, sometimes a mile or more in extent, swimming placidly and in perfect form of discipline on or near the top of the water, when like a flash, presto! they are gone, and nothing is seen but a frothy churn, little white caps, here and there, on the surface of the sea. From the leader, hundreds of rods distant from the rear guard, some mysterious note of alarm, how communicated we know not, has been flashed among the host and heeded instantaneously. No simultaneous impulse of self-preservation or intuition of danger could have permeated so vast an army on the instant—orders came like a flash of wireless telegraphy, and the ruffled water became as dead and barren as a burned prairie.

But be these things as they may, the element that fish live in prohibits an intelligent acquaintance with their habits; the physiological laws that govern them cannot be determined, and conclusion based on analogy is at best conjectural. As to the development of their emotional nature we are at a loss to appreciate its extent and quality; but if we are ignorant as to the workings of their "inner life," as anglers we credit them with all the better and worse sentiments and qualities of human nature: they love, they hate, they fight and fraternize; they appear to reason *a priori*, are cunning and even thrifty; they can climb a tree and burrow into the earth; make land voyages and have ocean ranges of thousands of miles, and again we find them as house-dwellers and workers with stone and wood.

But all correspondents are not disposed to delve into the mysteries of fish life. One, intent on practical things, queries as to the best places to visit and best lures to be used in his contemplated visit to Florida in February, wanting particularly to know about fly-fishing opportunities and the best waters to indulge in it. To this correspondent we suggest, as the nearest point to Jacksonville, a visit to the Hillsborough River near New Smyrna for the usual run of semi-tropical fish, including the large channel bass, locally called "red drum." A week or two there, and then down the east coast to the Indian River, making headquarters at St. Lucie After which he should go to Key West, take steamer to Tampa, fish around that city and then take a bay steamboat to Manatee, thence to Sarasota, where he will find excellent fishing in the bay of that name, and good fly fishing in adjacent creeks—Phillippi's and Billy Bowleg's—on the incoming tide Thence to Punta Gorda and to Punta Rossa, thence to Marco, at all of which places he will find big fish, tarpon included, particularly at the last named locality, and in the neighboring creeks opportunities for fly fishing He should be careful to use large salmon flies tied on ductile wire snoods and leaders

Another correspondent contemplating an early outing after sea trout, wants to know where to go for them. If time and expense is no object he should visit Newfoundland, making St Johns his headquarters, where he will meet on every hand genial sportsmen who will cheerfully furnish all detailed information required. Several of the Nova Scotian streams furnish excellent fishing for sea trout, and these fish swarm in waters adjacent to Tadousac at the mouth of the Saguenay River, particularly in the months of July and August. Nearly all the streams flowing into Chaleurs Bay give good fishing for sea trout, and our correspondent would do well to make Chatham, N. B, a delightful Canadian town, his headquarters. Want of space alone prevents replies to several other correspondents, those who have not yet received answers by mail.

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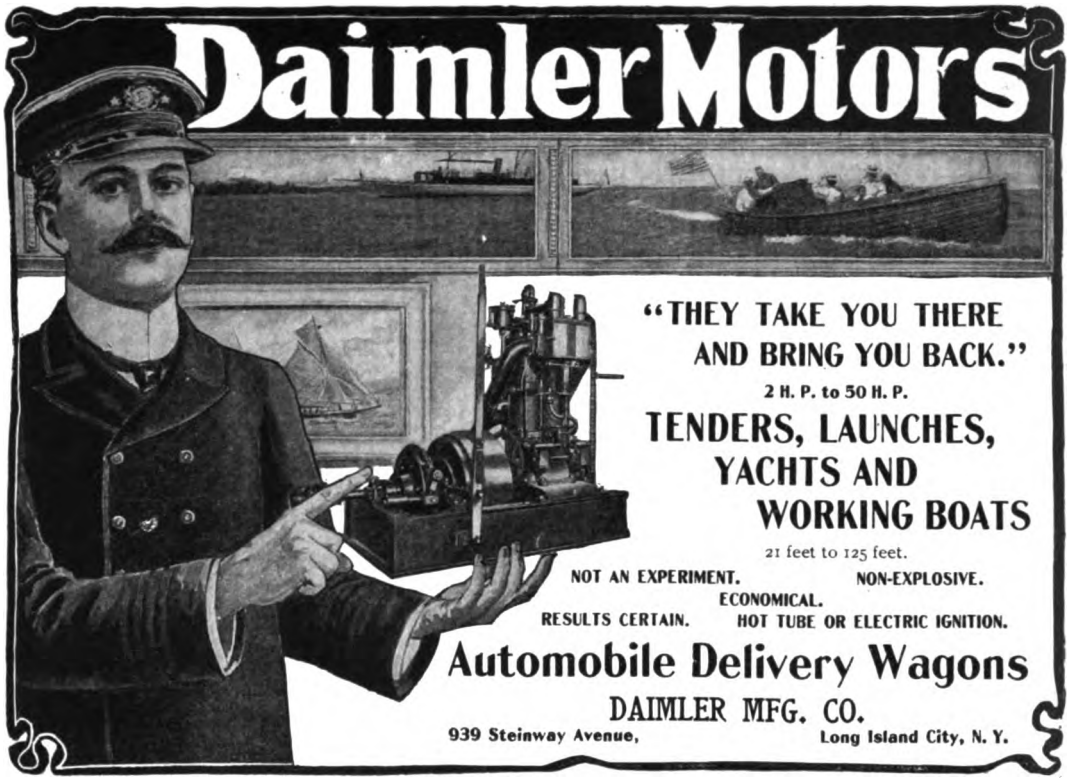

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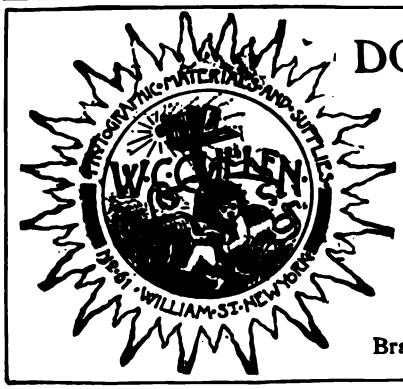

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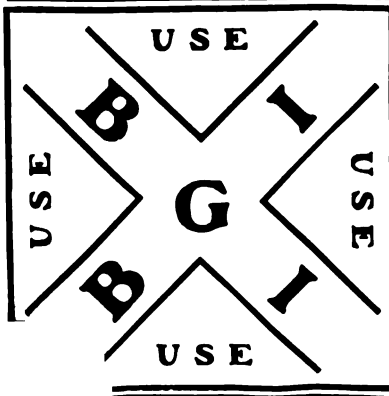

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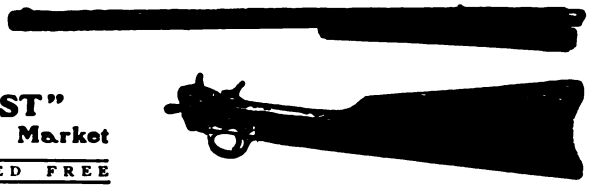

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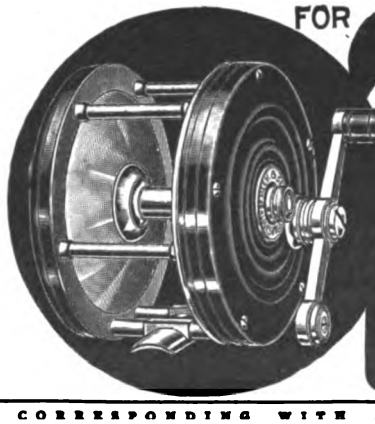

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A country place in New England near some large town, suitable for a summer residence.

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An accessible property on the coast of California.

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This thing of being hurried into a big real estate business before I am ready is annoying. My information bureau is working like a well-oiled clock, and it is growing in usefulness every day. More of that elsewhere. But this real estate department is something I had not originally contemplated. I shall go at it as thoroughly as I go at everything else. You who need my services must help me to make the department.

I now have nearly a hundred attractive properties in my hands for sale, and my lists of these are very attractively prepared. You can have them for the asking. Only please let me know what you want, and where. There is no use sending a complete catalogue of everything, when you only want a particular sort of property in some given section of the country.

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BUT while I have nearly a hundred properties in my hands for sale, that number is only one-twentieth of what I should have to fill the natural demands of OUTING's wealthy class of readers. Every mail brings inquiries for something I don't have on hand. I have closed two sales for subscribers already in the month this department has been actively at work, but I might have closed two dozen if I could have had precisely what the buyer wanted.

I wish to have it clearly understood that I do not undertake to rent properties, unless they are for hunting or fishing purposes or for outing use. I otherwise only buy, sell, or exchange.

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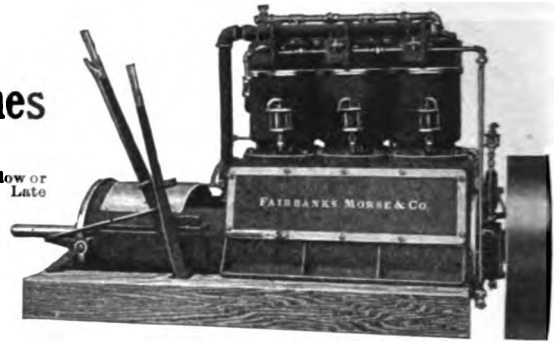

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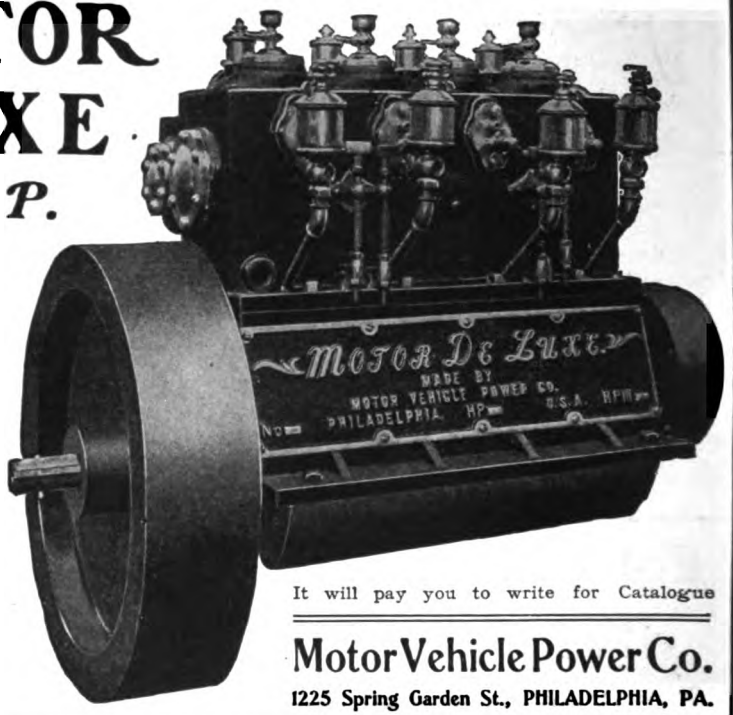

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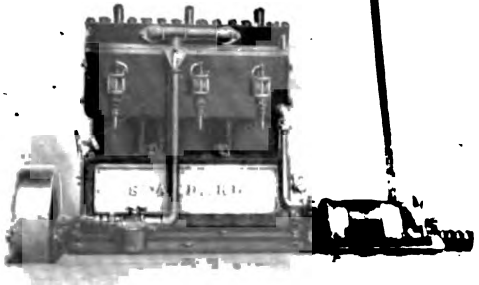

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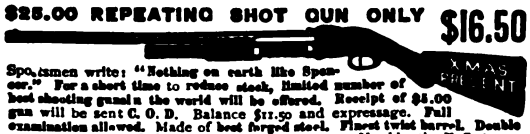

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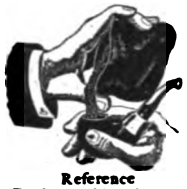

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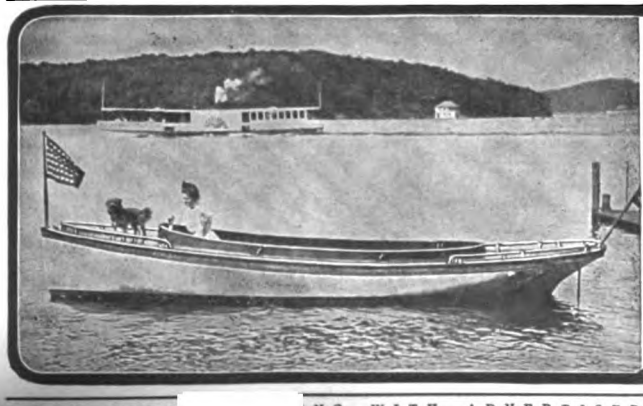

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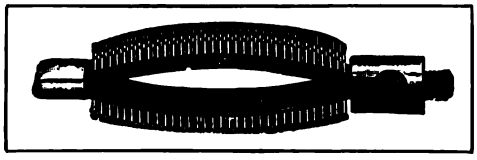

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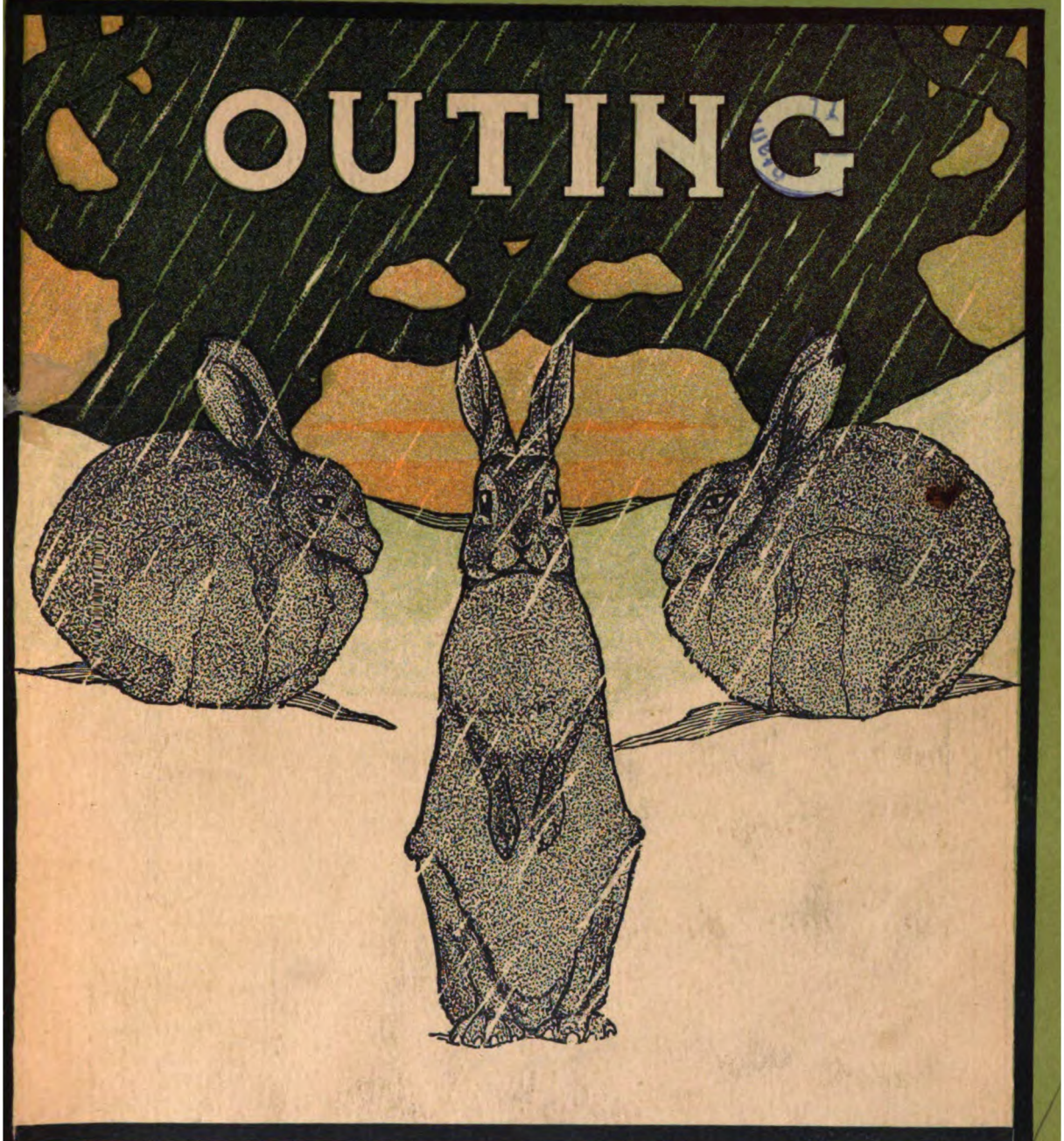

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THE MAGAZINE OF SPORT, TRAVEL, ADVENTURE AND COUNTRY LIFE

Issued on the first day of every month, at 239 Fifth Avenue, New York City

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MARCH 1902

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I BEG TO REPORT A BUSY MONTH

THANK YOU, gentlemen, for giving me plenty to do. Your demands have settled down to such a continuous flow that I have been able to get more help and better help to aid me in carrying on the work. The first requirement for a good service is that it be sufficiently large to test its weak points and to afford facilities to do things on a liberal scale. You have asked me a great many hard questions and I am thankful for it because they have put me in a position to demand a large and satisfactory force. By leaving the details to well-informed assistants, I have time to go over every bit of the work and bring it up to the standard I want to attain for it.

I SHOULD have thanked the ladies, too. If it were not for violating a confidence, I should greatly like to show some of my sweet-scented, square-enveloped correspondence. There are some doubting Thomases who believe that OUTING is read only by men. I could show them their error if I were at liberty to do so.

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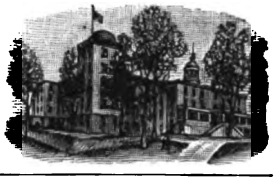

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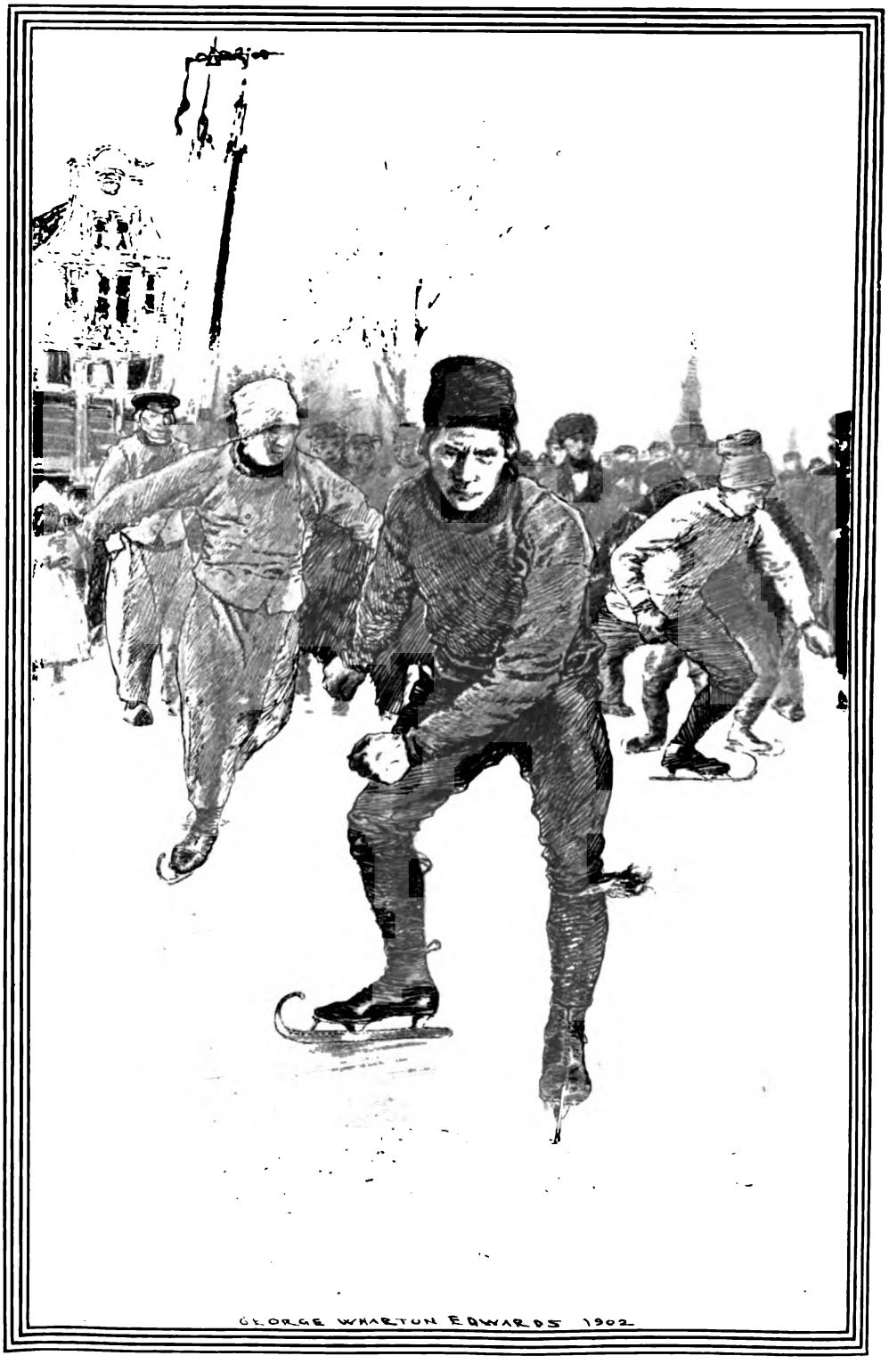

"The Frieslander, though he thinks no man can compare with him, is really rather an ungainly person, even at a sports' competition."

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OUTING

VOL. XXXIX MARCH, 1902 NO. 6

THE INDIAN HUNTER OF THE FAR NORTHWEST

ON THE TRAIL TO THE KLONDIKE

By TAPPAN ADNEY

IT is only one of nearly all impressions of the Yukon country (which includes Klondike) received from the meagre reports of the first miners who gazed from the summit of Chilkoot Pass upon the sources of that river upwards of twenty years ago, that the land is forbidding in every particular, and nearly or quite destitute of game. Had we, who joined the great stampede thither in '97, stopped to consider that the fur-trader had been established on that river for upwards of fifty years, we should have known that the fur-bearing animals, the beaver, otter, sable, mink, fox, and ermine were the basis of a profitable trade, and we might not have conceived a country barren of the larger game. I myself had been further unprepared by hearing a lecture delivered before no less a body than the American Geographical Society, in which the lecturer, basing his opinion no doubt on the reports of those who had merely drifted down the river in summer, gravely stated that the mosquitoes were so numerous and venemous there that the larger animals, such as the reindeer and I believe moose, could not exist. On my may in, that eventful autumn, by way of the head of the Yukon River, I encountered thousands of ducks on the lakes; while bands of wretched and wild-looking Indians at occasional intervals offered for trade skins of moose, mountain-goat, mountain-sheep, and black and grizzly bears. At Pelly River, I saw in a trading post a bunch of thirteen silver-gray and black fox skins, and learned that the proportion of blacks to "reds" was

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greater than in any known place. Farther on, I took a shot, from my boat, at a distant gray wolf; and while drifting in the ice which bore my little craft helplessly along, just above Klondike, I had the exceeding satisfaction of watching my first and only live wolverine, loping along the bank with arched back and drooping tail—characteristic carriage of the weasel family, of which it is the largest representative. And how my imagination carried me back to the tales of the fur countries; lines of broken sable traps, and exasperated trappers!

I heard white men, returned from the upper Klondike, tell of beaver; of bear "signs," plentiful beyond all past experience; and of moose and caribou, in numbers of which they never before had dreamed; and I knew that the real truth, as of game as of mining, was yet to be told. That winter I accompanied a band of about sixty Indians, comprising an entire village, who were established at their ancient home at the mouth of the Klondike River, to the upper waters of that stream; following with dogs, toboggans and "skin-houses" the trail of moose and "deer," as they had been accustomed to hunt for ages. I was the only white man with them, and the only one excepting a missionary, long ago, who ever thus lived with them, and I acquired a knowledge of the game of the country possible to acquire in no other way; of modern and ancient ways of hunting; and of trapping. In all we killed some eighty moose, and sixty-five caribou or reindeer, the main part of which was hauled by dogs to the starving miners at Dawson. Much game was killed by white hunters; but on the whole the best of them lacked the consummate skill of the Indian, brought up as he is to perfect knowledge of the country and of the habits of the game.

The Klondike River, a swift shallow stream a hundred and fifty miles or more in length, rises in a number of branches at the base of lofty, rugged peaks comprising the northern continuation of the Rocky Mountains. Its valley is generally broad and flat, covered with dense growth of spruce, interspersed with birches, poplars and low willows. On either side there rise rounded hills, frequently thousands of feet in height, bare upon their tops, their sides covered with trees the same as of the valleys, but sparse and stunted—so much so that a spruce of the size of one's arm might be hundreds of years old, with rings of growth as close as the leaves of a book. The climate is dry, but little rain falling in summer, and in winter the sky is as "clear as a bell"; what snow there is seems to come more from the rising mists of the river, which is never frozen over entirely (though the ice goes out in cakes ten feet thick!), and this falls gently from day to day and the air is so still that the snow clings to the limbs where it falls, until they reach the size of barrels, and often on the higher hills so envelopes the vegetation that the landscape appears like some gallery of tall, weird forms chiseled from purest marble. The intense cold (reaching seventy below zero, and more) and the absence of wind in early winter prevent the snow from packing and crusting until the returning spring sun warms the earth back to life. Two or three feet of snow is the utmost, and being light as down makes snow-shoeing exceedingly laborious, while offering no obstacle to the movements of the moose, which never is obliged to "yard" as in more southern latitudes, but wanders at will from valley to mountain top, browsing upon the fragrant buds of the white birch and young shoots of the willow. The native inhabitants of the valley of the Yukon, as far as tidewater (where the Eskimo begin), are pure Indian, belonging to the Athabaska group of the Tinneh and the most northerly of Indian tribes; those upon the middle Yukon being known to the old Hudson's Bay people as Kutchins. There are many villages of them along the streams, but they are not numerous and are becoming yearly less so. Until the advent of the white man, who now supplies them in small quantities with tea, sugar, flour and pork, they subsisted entirely, with the exception of a few roots and berries, upon the abundant salmon of the rivers, and on the flesh of reindeer and moose, which also supply their clothing, and the coverings for their winter camps. In summer they live by the side of the rivers, and in winter move inland, hunting, following the wooded valleys of the water-courses. All who are able to move accompany the hunt, and with household goods loaded upon the light birch-wood toboggans, drawn by dogs (the pups and babies riding on top), they

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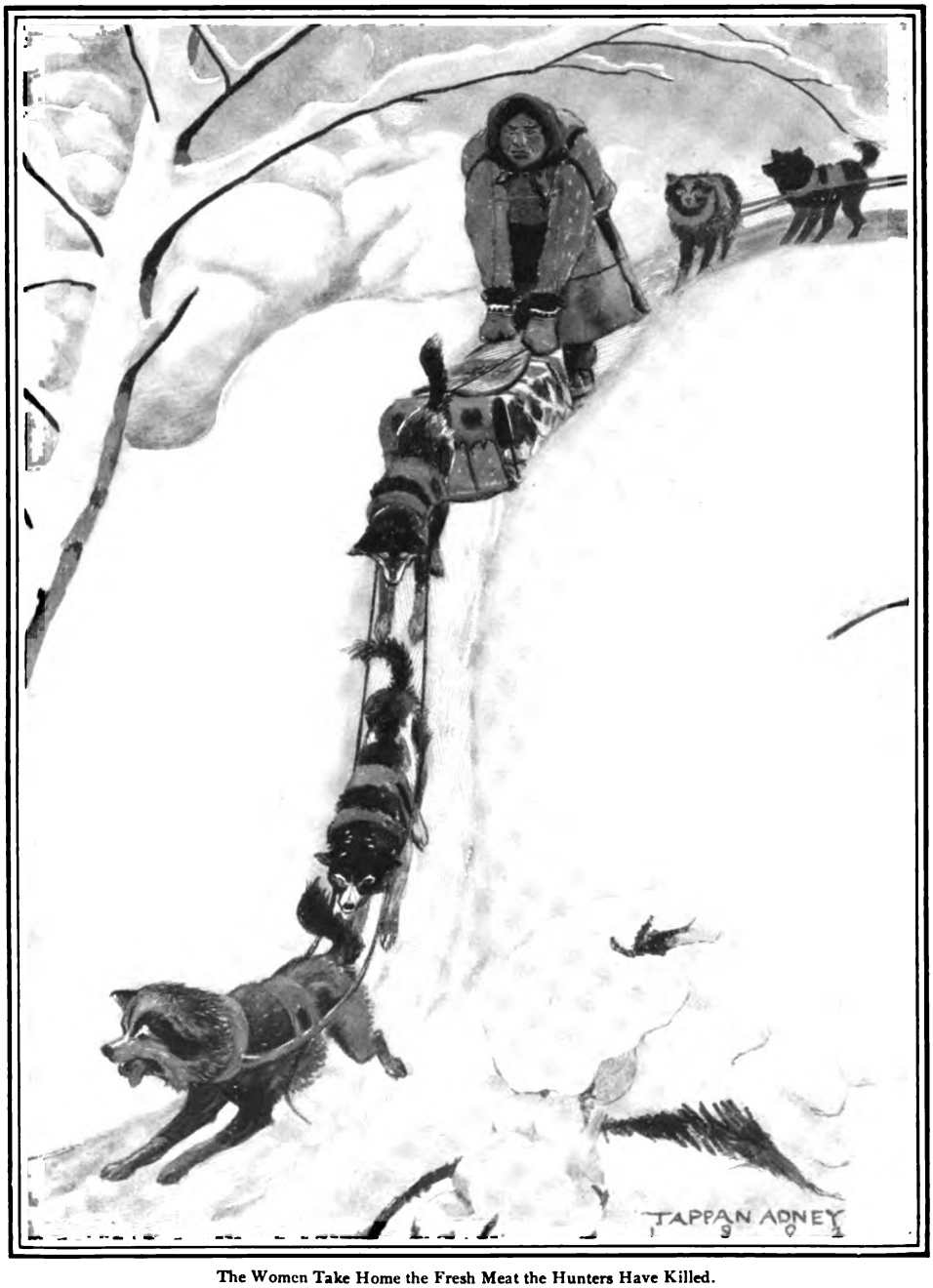

The Women Take Home the Fresh Meat the Hunters Have Killed.

move by short easy stages, seldom more than six or seven miles at a time.

The men are variously dressed. The older men wear shirts of caribou skin (tanned and made up with hair inside), which reach to the middle, with a curious rounded point at front and back extending lower; or a shirt of rabbit skins, split, plaited and sewn together, making at once the lightest and warmest garment known, which they wear next the skin in the coldest weather, with nothing else! Heavy "duffel" blankets, of the most brilliant colorings, are also made into short, full skirts. A piece of

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Visiting the Wolverine Trap.

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After the Killing Comes the Feasting.

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the same makes a pair of pants, while the remainder of a fourteen-pound "four-point" blanket serves as a covering by night. The better nether garment is made of caribou skin with pants and moccasins in one, gathered around the waist by a draw-string. Mittens made full large are of moose hide lined with blanket or lynx-fur, suspended from the neck by a large cord of variegated yarn. The head covering is a flat cap of sable with ear-flaps. The hair generally falls to the shoulders, and with their prominent cheek bones, capacious mouth, and strong eyebrows (often squinting downward toward the nose), they have been characterized as "extremely ugly"—rather, I should say, fierce-looking. The men wear thin, coarse mustaches, and some of them shave this below the nose, with a curious effect. The "A-C" company supplies them with the best of forty-five-seventy repeating rifles, which they carry in brightly ornamented cases of caribou skin open at one end so as to be instantly drawn off in the presence of game. The older men cling to the long, single barrel trade smooth-bore, and bullets and caps are carried in an ornamented bag suspended in front by a strap around the neck, powder being carried in a horn at the side. A plaited moosehide cord fifteen feet long, slung at the side, for packing in the first meat of the freshly killed animal, a pair of snow-shoes five feet long and a foot wide, made and laced of white birch with fine caribou webbing, except under foot, where an open, old-fashioned bed-cord arrangement of thick rawhide is stretched, and a sheath knife and cartridge belt, complete the equipment of the hunter. The women's principal garment is a voluminous over shirt reaching below the knees, with a large hood, which chiefly serves as a carrying place for the baby; her own head being covered by a silk kerchief. If the village has plenty of dogs the women do all the work of making and breaking camp, and cutting wood; the manner of hunting being this: the hunters start ahead before daybreak, usually in a body, with snow-shoes and rifles; where they wish the next camp to be they turn off toward the hills. The women follow with the camp, and when the hunters return it is all ready for a stop of a day or a week, as circumstances shall determine. If dogs are scarce (we had only fifty, numbers having been sold to the miners at prices too tempting to resist) the hunters turn in like good fellows and help the women. How easy to say of these people (or Indians in general) "the men are lazy, the women do all the work!" Having done my share with them; having accompanied the hunters fifteen to twenty miles a day up and down the steep mountains, in snow so light that a heavy man goes through at every step, I assert, unhesitatingly, that of camp work and hunting, the hunting is the harder. Indeed, all strive to the limit of endurance, with an energy such as is only begotten of sharp, keen air, and imminence of starvation. It is the dogs that really suffer. Starved, lean, ill kept, snarling, cringing, wolfish brutes, howling from the instant toboggans rattle down from the caches, until unharnessed at night. One would scarcely suppose that a moose would remain in the whole country.

The hunters having marked the new camp site, swing toward the hills, in single file, ten to fifteen in number. Usually within one to three miles a fresh moose track is found, and with unerring skill (remarkable because of the lightness of the snow, which at once obliterates the footprint) they turn in the direction which the animal is taking, and when they are assured by the "sign" of the nearness to the game, they quickly spread out, and, rushing forward with swift strides and surprising the moose at close quarters, one of the band is able to drop him by one or more well directed shots. There is some luck about this, for I knew an Indian to fire eighteen shots without touching the moose, and going back next day over the same ground with ten others, himself get two, the only moose killed. It is a common thing for one hunter to get two while the rest get none. Hence the obvious necessity for the law respecting the division of the meat, which is as follows: the hind-quarters are absolutely the property of the man who shoots the animal, the rest belongs to the community; but he may designate to which persons the fore shoulders shall go. The recipient of a fore-shoulder, in turn, reciprocates. Thus as long as there is game, each gets his share, while there is also incentive for the skilful hunter to increase his personal wealth to some extent. The surplus meat may be traded for guns and blankets, and

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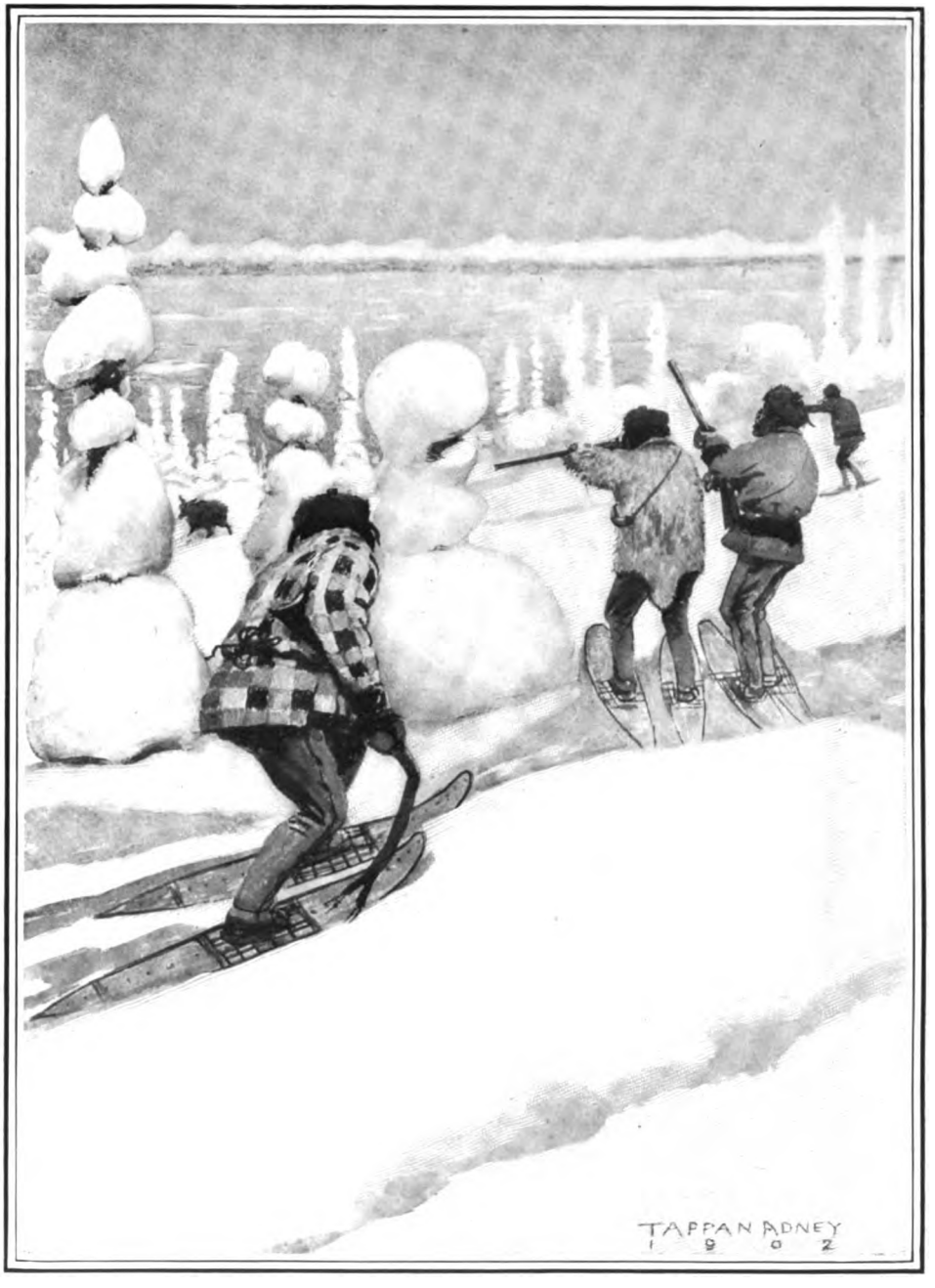

Surprising the Moose at Close Quarters.

these in turn are traded with other Indians. The successful hunter and the shrewd trader becomes the man of wealth, and is chosen chief, and his position is that of patriarch who counsels his people, yet without compulsory authority.

The instant the moose has fallen, the work is finished with sheath knives. The carcass is skinned, quartered, and the head removed, with nothing but the knife. While some are doing this, others are breaking small dead trees with their hands

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Klondike Indian Village—Arrival of a Load of Moose Meat.

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and building a large fire on top the snow, on each side of which spruce boughs are laid to kneel upon. Strings of fat and shreds of flesh from inside the carcass are toasted in the flames on the ends of sticks, and greedily swallowed. The brilliant colors in the costumes of the hunters as they crowd around the fire add to the general goriness of snow and hands, and the ferocious vigor with which the half-raw flesh is gorged presents a picture that is seldom witnessed of savage revelry and of manners scarcely better than wolves. In the space of an hour from the first shot a lunch will have been partaken, a piece of the moose slung over the back of every one, and all have started back in single file. On the first day we walked eighteen miles, got two moose, and when we reached camp at dark, two others, old men, hunting alone, each brought in one moose. The best hunters prefer to hunt alone, but it requires much skill. No chances are taken rushing the game blindly. As the trail grows "warm" the hunter moves with great circumspection, peering through the trees and bushes on each side, hoping to find the game lying down resting or asleep. As the trail becomes "hot," snow-shoes are laid off, and the hunter creeps slowly ahead until he sees the head and long ears of the moose as it lies in its bed; with a well-directed shot through the head he secures it. Thus one Indian killed three moose. This man had killed moose in quite recent years with a bow and arrow!

Following the killing the men and women next day take dogs and fetch in the meat. The hide is at once prepared for subsequent tanning. It is laid across a slanting pole inside the skin-house and a squaw scrapes off the hair, and then with a sharpened shin-bone "fleshes" the other side. The edges are slit (for lacing into a frame) and the skin is placed in a pan of hot water with which rotten wood has been boiled; the surplus moisture is then wrung out and the skin hung over an elevated pole outdoors. When the camp moves on, the pelt is hoisted into a tree out of reach of wolverines, to be picked up on the return, and tanned in the summer with a "soup" of liver, worked until soft, then smoked, and made into articles of use.

The head and leg bones are roasted before the camp fire, cracked and eaten, and not even the gristle or the cartilage of the ears is wasted. Whatever an Indian cannot eat, he gives his dogs.

By midwinter the antlers have fallen, and there is no readily distinguishing bulls from cows. A cow, indeed, is much preferred to tough bull—for, as Isaac the chief expressed it in his much broken English, "Mull moose, too much tupp; cow moose, plenty fat stop, he-all-right." So we ate the cows; and the tough meat went to the miners! The capture of a fat moose is celebrated by a grand feast. All the hunters assemble in one house, the host (usually the chief first) levies upon all the tin kettles and pans in camp and a great quantity of meat is boiled, each man receiving a share proportionate to the size of his family. At a signal all sit up, and each eats as much as he can; the rest is handed out to the women and children. No salt is used. The hot fat which rises to the top is skimmed off in an immense wooden spoon and passed around the circle, each taking a sip. Tea with sugar is served, and the pans are filled twice; thus the whole day (the only day of rest known to a hunting people, although missionaries have taught them to keep one day in seven as one on which they shall not hunt; but employ for every other household purpose) is spent in talking, smoking, and general enjoyment.

When the country for a radius of six to ten miles has been scoured, the village moves on another stage; then the same hunting and feasting take place. We took five weeks to travel forty-five miles from Dawson, and in that time we got forty-eight moose. No tracks of caribou were seen. The village continued on thirty miles farther toward the foothills of the Rockies, and there found the caribou and killed sixty-five, the meat of which was dried and, with the skins of the moose and deer, packed to Dawson.

The so-called caribou seems to be the Barren Ground species, which is none other than the native "reindeer" of Alaska. The woodland caribou is found in the mountains to the south of Klondike, but I am informed that it does not occur south of Big Salmon River, where the Indians know it by name and distinguish it from the Barren Ground caribou of the North. The caribou of the Klondike region occurs in small bands over the country on the higher hill tops where it feeds

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The Women and the Children Move Camp.

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on the gray moss; but it is generally local in its range, migrating at times in bands so vast as to stagger belief. One such range is on the head of Forty Mile River, and from there they migrate, it is said, across the Yukon in winter to the eastern or Klondike side, and are found on the bald foot-hills of the Rocky range. Once in their migration they passed by the mouth of Forty Mile and 400 were shot by the miners. In the fall of 1897, two or three small parties of white men ascended the Klondike to a point above where the Indians went. They reported the "deer," as the caribou is called, exhausted their ammunition in killing forty-seven, and brought back the almost incredible story that the deer were there in numbers that would easily reach ten or twenty thousand. Another party, a member of which I came to know intimately, and to know him as a perfectly reliable man, said that he, too, found the deer, which seemed to be moving in bands of twenty to thirty in a general direction, and that some of the main roads which they traveled were beaten by their hoofs "as smooth as the trail on Bonanza Creek." Thus they occur on Porcupine River and Birch Creek; yet so variable and uncertain are these eccentric animals that the Indians sometimes altogether fail to strike them, and in two cases while I was in the Yukon, a village, one at Porcupine and one at Tanana, was obliged to flee for very life. In the first instance, the Alaska Commercial Company's agent at Fort Yukon, being advised by courier, met the starving village of fifty souls, who in the previous three days had had to eat but a single weasel; while the miners at Circle City similarly sent relief to the others. Hunters told me that above where we hunted the moose were much more abundant. Passing over, the following summer, some of the ground where we had hunted, I found in a walk of six miles and return the fallen antlers in fair preservation of no less than four moose. The gray or timber wolf is found in occasional bands, following the moose and deer, and on the clear surface of the Klondike I saw the marks of a tragedy only a few days old, where half a dozen wolves had surrounded a moose, which ran only two hundred yards among the bushes before he was downed. The tracks in the snow plainly told the story, and when I came up the ravens were completing the work of the wolves. A hunter who poisoned one of this band told me that from the carcass he obtained a quart of oil, and that in all his considerable experience it was the first wolf which had any fat at all.

In the days of bows and arrows, when Indians were also more numerous, sometimes as many as one hundred hunters would surround a band of caribou. Leaving the village in the valley, the Indians would mount the hills, and, as they neared the band, one went cautiously ahead until he located the herd slowly feeding, perhaps brought down one, then stole back unobserved, and then the hunters spread out each side, keeping an equal space between them until the unsuspecting herd was entirely surrounded. Then they closed in, and, as they came near, the startled deer would rush off only to meet men. The hunters rushed in with shouts, and the poor creatures, knowing not which way to go, fell easy victims to the arrows. In this way (the old men say), as many as four or five hundred deer have been killed at a single time. The Indians usually do not hunt in summer, but during the summer of 1898 the demand for fresh meat continued so great at Dawson that numbers of white men proceeded to the upper Klondike in canoes and hunted moose with considerable success. They lay in wait at roads leading to ponds or salt-licks where the moose came down to drink. There were not lacking men even here, who forfeited every right to carry a gun by shooting down in pure wantonness numbers of moose which they made no attempt to save. I was never able to learn that "calling" is ever employed in Alaska by Indian or white man to bring moose, by imitating the call of the cow, within reach of the hunter. The favorite method of the Indian is to lie in wait by a trail leading to water.

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THE WEBBED FEET OF THE NORTH

By LEONIDAS HUBBARD, Jr.

SOMEWHERE on the Canadian coat-of-arms, over or under or between the lion and the unicorn, there should have been two inanimate things, the snow-shoe and the canoe. Look at the map of British America and you will see that, barring two or three short branches which run out from the great trunk lines and come to an abrupt end, the whole of the continent above the fiftieth parallel of latitude is railroadless. There are few wagon roads and no stage lines to speak of. Yet you can buy at Missanabie or at Roberval moccasins made at Moose Factory; and furs are pouring into Montreal from regions northward of Fort Churchill. Into all that region men go to hunt, to trap, to buy furs, to prospect for minerals, and to plan new extensions of empire. In summer it is the canoe that saves this land from isolation. In winter, when the Arctic extends its outposts southward, the snow-shoe is the sole agent through which civilization keeps in touch with the life and wealth of the vast Canadian North.

I wish we knew the early history of the snow-shoe. I have a friend who is certain it belonged to prehistoric Canada. For this friend's brother knows a man who, while hunting on the Jacques Cartier River, found in the rock an impression of a snow-shoe. Just what any prehistoric individual meant by traveling over plastic rock—Laurentian rock at that—on webbed shoes, neither my friend, nor his brother, nor the brother's friend, undertook to explain. Perhaps his doing so would tend to show the equally early origin of that other famous Canadian article, "whisky blanc." But whatever the time and place of its origin, the snow-shoe is the device of a philosopher. Somewhere in the literature of Mother Goose days we read of a youth who turned his attention to the matter of walking on water, with the resulting decision that

"With shoes of cork
On top of the water he could walk;
But his feet went up and his head went down,
And the bright little lad was like to drown."

Let us hope the life-saving crew was at hand, for the spirit of progress was in that boy, and the world could ill afford to lose him.

I doubt not that the inventor of the snow-shoe reasoned along analogous lines. One can imagine that the furry aborigine, wrestling through the snow to his rabbit traps, or starving in his lodge for want of rabbits, had his mind turned by Mother Necessity to the problem of walking on snow. I doubt not that he first made two slabs of wood and fastened them to his feet. He left the lodge with a head full of wonder. With the assembled families looking eagerly on he put one foot upon the drift, and, throwing his weight upon it, stepped out with the other. Then what a thrill must have possessed his savage soul. *He could walk on snow.* He took a dozen careful steps. Then confidence overcame caution, he forgot that those slabs were not moccasins—and something happened. The slab in front got in the way of the one that was going forward, and right then and there occurred the first "spill." Two arms went into the snow, and may be a face made its imprint in the whiteness. But at any rate the inventor went to his traps and brought back that wherewith to keep away the wolf. The invention had been made. Then began the period of improvement.

Slabs were heavy, and the inventor and his fellows began to think of schemes to

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Hurdling the Fence.

lighten the new appliance. A deer-skin web on a wooden frame gave the maximum of lightness and strength. In the matter of shape this webbed frame varied as the personality of the maker and the country in which it was to be worn. One man liked a long and narrow shoe, for the reason that narrow shoes did not tangle up so readily as wide ones. But while this was good reasoning so long as he was walking on level ground, he found that the matter of climbing hills with two feet of web and frame in front of his toes was a proposition to be shunned. So the mountain climber and the man who trapped in hilly country rounded their shoes to give the

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greatest surface with the shortest length, and in time the circular shoe came to be known by the generic name of its wearers as the "Montagnais" or mountaineer shoe. Between the long and narrow shoe and the circular Montagnais is every sort of intermediate variation, and for each is a man who swears that there is no other kind worth wearing; even as you and I swear about guns, canoes, and bicycles.

Ten miles north of Quebec is Indian Lorette, the home of the Hurons. In the narrow streets are Hurons driving dog sleighs and Hurons carrying skins. There is a black-robed priest on the rounds of his parish, and dusky children on their way to school. The fences are half hidden in snow drifts, and the little white houses seem, like the ptarmigan, to have taken on the color of the northern winter. Within are men and women and girls and boys all making webbed shoes and moose-skin moccasins for snow-shoers. Here a man shaves the frames which his fellow worker bends and ties. There a lad holds a hide of leather while his parent with a keen knife slits it into strings. These go to other workers who weave the web within the frames.

Fifteen thousand pairs of snow-shoes went out from this one village last year. They went to a wholesale house in the city. In that house sits a man at a desk with a big order book. In the book are names of traders and farmers and trappers and hunters and miners, of lumber companies and snow-shoe clubs, scattered all the way from Toronto to Cape Nome. Every town and every farm, every hunter's lodge and every logging camp in Canada knows the snow-shoe. Every city has its club or clubs of snow-shoers who tramp the drifts for the pleasure of the thing.

The little city of Levis, opposite Quebec, has a snow-shoe club that dates back to the decade following the war of 1812. Quebec has a dozen clubs and Montreal still more, while the smaller cities have clubs in proportion to their population. Then, too, pretty nearly every local branch of the Young Men's Christian Association has its nights set aside for snow-shoe tramps, and kindred organizations with a turn toward the athletic make snow-shoeing a feature of their work. One tramp a week is the usual frequency. The objective point is the club house in the country, some hospitable farm house or a way-side hotel. Every more pretentious organization has its country house. Sometimes this becomes the property of the club, but more often it is rented from some farmer. The plan followed by the Quebec Snow-Shoe Club and many others is to rent a different house each year, that the walks may not be always over the same course. The distance of this house from the city varies from two miles to five, according to the greater or less love of the members for that which is strenuous.

In the wholesale house are gross upon gross of snow-shoes marked "club." The club shoe is longer and narrower than the Montagnais or semi-Montagnais, and shorter and wider than the long and narrow "Klondike." It is light of weight and low in price. There is a pair in the retail window down stairs. In comes a young fellow from a bank across the way. He buys the shoes for $2.50. When the moon has risen and sleighs full of merry-makers are crowding the street he sallies out, clad in a suit whose varied colors would have made the coat of Joseph seem commonplace. Moccasins are on his feet, and in his hands he carries the new snow-shoes. He meets his fellows at the skating rink or at a city gate, and they choose a leader for the evening's tramp. Not so much snow-shoeing ability as abundant common sense is the qualification of a good leader. If the party be small and made up of good travelers he must set the pace accordingly. But when the party is large, or has in it some who can not keep a stiff pace, he must see that the gait be moderate, for there are obvious reasons why the club should not leave any lonely straggler out upon the wind-swept fields at night.

On the night I have in mind the leader turns northward from the Quebec Skating Rink, leaves the road that runs past the cartridge factory, and soon a single line of snow-shoers is swinging away across the Cove fields toward the country beyond. What a sight that line would be to one who has never seen a snow-shoe! As the horse to the Aztec or the first steamboat to a darky would be those mysterious big-footed creatures in fantastic costume that go over the drifts with never a check in speed. Here in the open fields there is a suggestion of crust, and a steady crunch, crunch,

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is music to the snow-shoers' ears as is the crunch of cinders to wearers of the spiked shoe. Crunch, crunch, crunch, and on goes the line with a swinging stride that carries one foot safely past the other. The region of electric lights has been left behind. A white moon, hung low in the heavens, reveals with a clear, pale Arctic light, white fields, shadowy hills, a winding road and the dark tree-tops of a bit of woodland. It is such a light as

> "Only served where'er it fell
> To make the coldness visible."

Yes, and to reveal the silence, for the silence of the moonlight is not the silence of the dark, and there is something in this universal Canadian whiteness that suggests the endless ice sheets of the distant north, and something in the thrill of walking through the zero air that recalls our envious readings of Nansen's journals.

Now the silence is invaded by the steady crunch, crunch, as each man steps in the footprint of his predecessor. And now some one starts a song that echoes across the fields till a response comes up from a sleighing party on the country road below. Here is a rail fence. Each touches it with his hands and gives a spring. How long it seems before the wide shoes have reached the turning point! And how long before they touch the snow beyond! Each traveler must make haste, for the line has not slackened, and woe unto him who tarries where the vaulters alight. There, the fat fellow, fifth from the leader, has fallen. The next man lands squarely upon him, and now there is a struggling heap of tangled bodies and waving webs. Now they are up again and off, laughing and shouting; shouting just to gratify that peculiar desire for noise which nothing but a hearty yell will help. Now the line slackens, for the leader has run upon a barbed-wire fence, that sport-destroying thing loved as little by the snow-shoer as by the man who rides to hounds. But the man in front puts his hands on top of a post. He leaps upward and throws himself forward until he is balanced horizontally, the pit of his stomach on his hands. Now his feet move round like the slow arm of a crane until they are beyond the wires. Then they drop to the snow and the man is ready to turn and enjoy the mishaps of his fellows. One drops too soon, and his shoes hang high on the fence while his mittened hands are pawing the drift. Another carries a large three-cornered rent in his blanket trousers. Now we are in a road. The opposite fence is too high to vault. It must be "hurdled," so the leader stops, stoops, and rests his hands on a wire. The second man bends low with his hands on the leader's back. Number three follows suit, and behold an inclined plane up which rushes the remainder of the line to leap from the leader's shoulders to the snow beyond.

The shouting grows louder as the snow-shoers warm to their work. Now as they cross the field next the woods there is trouble down in front. It is the fat man's work again. Instead of stepping in the track of the man before, he clumsily landed on his snow-shoe, and this "nasty trip" has piled half the hurrying line into a snow-covered heap.

But on they go, spurred by the frosty air that cuts through the warm, light suits. There is a hill in the line of march, a small, steep hill that would test the virtues of a pair of Montagnais. There is no going straight to the top on these club shoes with two feet of web and frame before one's toes. So some turn and work up sidewise while others angle this way and that like a tacking ship. The hill is a ridge, and the line has only gotten under headway when it must go down on the other side. There is a little run as the brow is reached; the leader squats on his shoes and shoots downward like a tobogganist, while the line follows after to spring up at the bottom and hurry into the woods. Here the light of the moon is hidden. Pines and firs reach out arms to catch and trip. The crunch of the crust is gone, and in its place comes an exhilarating sense of walking on something soft and fleecy, a bird-like sense of traveling over that into which man ought normally to sink.

And now the club house comes into view. It is a farm house rented for a club rendezvous. The muscles have been feeling the strain, and the sight gives them new life.

Now the shoes are stacked and the travelers scramble into the house in their moose-skin moccasins. Here, by roaring fires, the outer coats are laid aside and

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"Instead of stepping in the track of the man before him, he clumsily landed on his snow-shoe."

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their wearers gather around a long table in house coats. On the table are pots of hot tea, and thick juicy steaks, and potatoes just from the oven. There is much dallying over the tea. Now there are songs again and speeches. A new member says something good, and there follows a frolicsome rush. The speaker is crowded to the door and out. There he finds himself raised between two lines of men on hands clasped underneath. Some one counts, "one, two, three," and the arms surge upward; the man shoots into the air with an awful sense of dizziness, to come down with wildly waving arms and legs upon another part of the line; to go up again and again until, in the opinion of those present, the "bounce" has been thoroughly administered and the new member is a full-fledged club man.

Now and then, in the course of a winter, comes "ladies' night," and the club runs take on a more social aspect. Feminine variations of the blanket suit add to the picturesque march across the fields. Feminine voices join in the songs, and the presence of blue sparkling feminine eyes and rosy feminine cheeks temper the hilarity about the long table. There is no phase of the out-of-door life of the more southern maids and matrons that exactly corresponds to this of their Canadian sisters. Neither the sail nor the row, the sleigh ride nor the moonlight spin awheel is like this tramping over the drifts. There is romance and merriment in them all, but in walking the snow-covered fields when the mercury hovers low and the wind cuts keen lies a unique sense of power, a new rosiness of cheek, and a new poise of head.

The exciting phase of club sport comes in the field days which the allied clubs of the larger cities hold once or twice each winter. This tramping in the moonlight with a good-sized party may partake of the Sunday promenade, but those who have trained for the field days know as well as those who go into the bush that snow-shoeing has its strenuous side. They know that the swing, swing of the big shoes and the strange new gait catch the beginner's untrained muscles to inflict lasting aches, while the steady pressure of the taut string upon the ball of one's foot cuts and makes each step a pang. They know the burning of frosty air in tired lungs, and the deadly strainings of the fight at the tape. For snow-shoeing, like any other vigorous outdoor sport, separates the sheep from the goats, and eliminates from the beginners those who fail to stand the test that marks strong, labor-loving men.

So far as the spirit goes, the field day of the snow-shoe clubs might be an annual gathering of college fellows at the cinder-track. Instead of cinders there are drifts of snow, while blanket suits and long snow-shoes supplant scanty sprinters' costumes and spiked slippers. There are the same shouting partisans with waving flags and club yells. To the uninitiated the results are likely to seem little short of miraculous. Surely those young fellows waiting for the pistol can only waddle the hundred yards course in ridiculous time! But the pistol cracks, and away they go. The swing of the long shoes is like the beating of piston rods, and when the tape is past the time read off is a fraction over twelve seconds. The quarter mile is done in time that has won many a high school race on the cinder track, and the mile in less than 5.40. And when, after leaping ditch and vaulting hurdle over a long cross-country course the men drag their leaden feet past the finish line, the time recorded is often as good as that made in a college race 'cross country on soft ground.

But club sport is merely the poetry of snow shoeing. There is another chapter of strong, stern prose that rings with the heroic. To get a glimpse at this take one of the short lines of railroad that go into the Canadian woods. Somewhere, not far from the end, you will find a building over whose door appears the famous legend, "Hudson's Bay Company." That door is the entrance to the Northern land. Within are snow-shoes, but they are not marked "club." Those who go to the wilds have no use for the light shoe of the athlete and the pleasure seeker. Instead, one sees heavier, wider articles marked "guaranteed." The men who buy and wear these talk not of club houses but of lakes or rivers or camps or posts to the north or east or west; and not of miles but of days' journeys—journeys across forest and lake and snow-drift where death lurks and where the breaking of a snow-shoe may be as the wrecking of a ship at sea. He who has taken a cheap shoe for a long tramp knows that there comes a time when the

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"The leader squats on his shoes and shoots downward like a toboggan."

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webs stretch, when the frame no longer answers, prompt and rigid, at the lifting of the foot, but swings below on sodden cords until the poor snow-shoer is tripped and worried and tired well-nigh to the point of quitting. The trials of him who goes far afield on the snow are sufficient without adding that of poor shoes. Shut your eyes and picture to yourself a half continent covered with snow and swept by chilling winds. See men creeping over that continent's face on foot, with no food, no shelter, no clothing, save that which they drag upon toboggans. Now the torturing *mal de raquette* of the snow-shoer catches his tendons, and every step gives the agony of piercing needles. But stopping means, perhaps, starvation, or that worse thing, failure, and the torture must be borne. Again, by one of those inevitable accidents that now and then break the best snow-shoe, the traveler finds one frame hopelessly splintered, while he is perhaps a week's journey from camp or post, or the nearest settlement, with bare starvation rations and but one snow shoe. They who go into the woods must needs carry deerskin thongs and an awl wherewith to repair, or if need be, make a new shoe. Men have lain down and died from broken snow-shoes.

One story will illustrate those that the snow-shoes tell. It relates to two poor Indians from the Montagnais Reserve on Lake St. John. When winter came John Groslouis and his wife started, like their fellows, for inland trapping grounds. They went northward to the shores of Lake Mistassini, and eastward, following a chain of nameless lakes. By one of the mysterious shiftings that no man has satisfactorily accounted for the caribou had left that region, and the only game was rabbits and ptarmigan. Food became scarce, and Groslouis was taken sick. The two started for Lake St. John. The man grew worse. His wife drew him on the toboggan. She traveled southward on a few bites of unnourishing rabbit flesh a day. Now the matches were gone; the woman lashed a copper kettle to the toboggan and put the last fire into this. As she went she kept stopping to feed the fire—their last hope. Two days' from the settlements Groslouis died, and his wife scooped a hole in the snow for the body. The last bit of rabbit was gone. That night the woman melted snow and stewed a pair of moccasins. She drank the broth and chewed the leather. Then she staggered on, and by chance fell in with a family of her own people.

Such tales are told of both the white race and the red, at every camp-fire and in every hunter's lodge. If the history of the Canadian snow-shoe were written it would be as thrilling as that of the Canadian rifle. For men must go into the winter wilds to trade and cut timber and survey; and men will go to hunt and explore and see new sights. They have learned that drenchings in icy water, days of hardest travel with less food than a growing boy eats at a meal, nights in the woods without blanket, frozen faces and aching sinews, are mere incidents of living, entirely negligible in computing final results—a lesson for which many a man could well afford to exchange the training of a whole college course.

We are accustomed to think of the vast white North as always to remain a land of canoe and snow-shoe trails. But a railroad is pushing toward Hudson's Bay, and when we glance at a globe we see that its northern terminus will be well southward of the parallel on which St. Petersburg stands, and not much beyond that of Berlin. We will see that regions cultivated and civilized in the old world lie far northward of the latitude of Fort Churchill.

Little by little the north of America will be peopled as was the north of Europe. We will cross the Arctic Circle—in observation cars. Then the heroic age of snow-shoeing will have passed, and men will tell their children of the romantic days in which their grandfathers sought out new lands and surveyed for new railroads on snow-shoes. Then the strong shoe of the voyageur will hang upon the wall beside the muzzle-loading gun, and the lighter shoe of that day's commerce will be worn by athletes, sportsmen, and club members who go into the forests to call up the good old days before romance departed from the earth.

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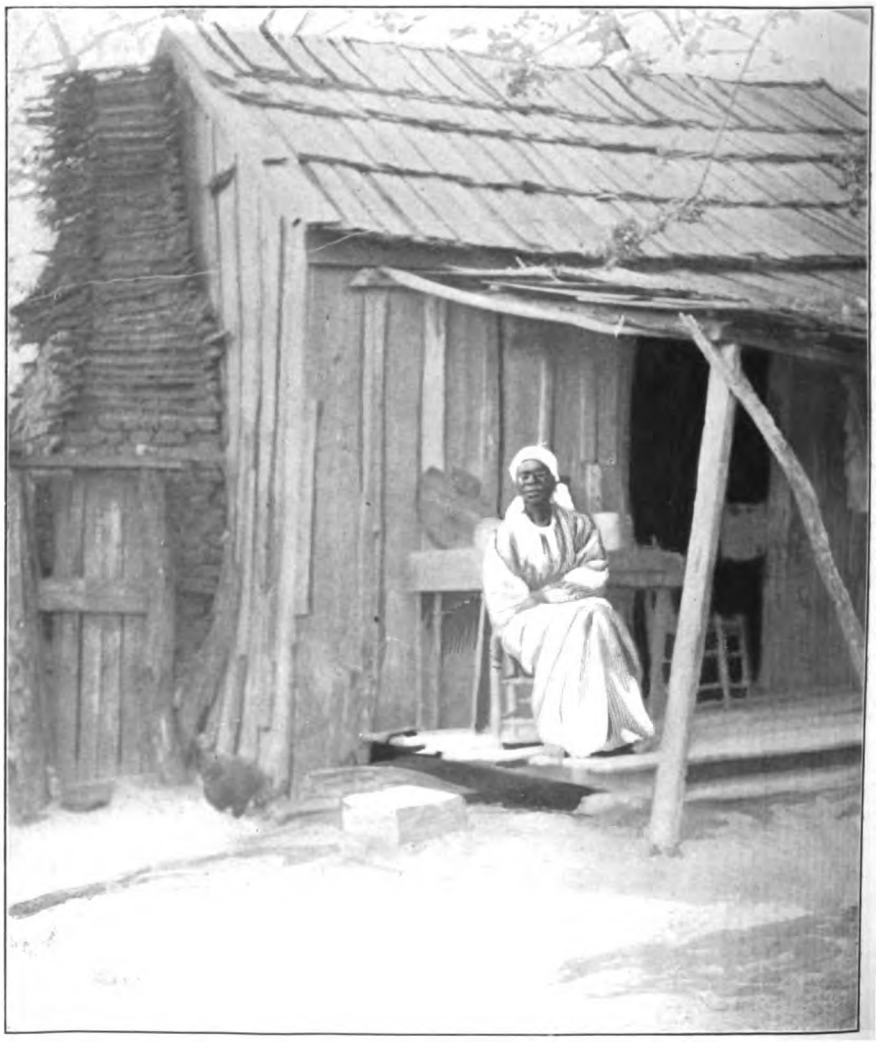
COUNTRY LIFE IN THE COTTON BELT

By LEON VANDERVORT

TO speak of country life in the cotton belt is almost a redundancy, for there is practically no city life in that region. The fact is not greatly to be wondered at, for the perpendicular summer sunrays would render an inland metropolis about as desirable for residence as the engine room of a steamer, while the country offers not only all of comfort that there is in the way of breeze and shade, but has offered the most lucrative investments. Mississippi, the very heart of the cotton belt, is practically a state without cities. Its plantations are uniformly from one thousand acres in extent to several times that size. Very many of its people—the backbone of the population, indeed—are of Virginia origin, and have in their veins the blood of the cavaliers. In a way the cotton belt life was the successor to plantation life on the tobacco lands of the Old Dominion.



The Old "Mammy" at Home.

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But the Virginia country life underwent decided modifications in its new surroundings. The temperate climate of the James, which encouraged for chasing and hard riding, gave way to the semi-tropical heat along the Big Black and the Yazoo, which soon induced men to ride forth on summer days with reins in one hand and umbrella in the other—and an umbrella-shaded pot-hunt is something inconceivable. So the country life which grew up with the opening of the new country adapted itself to new conditions. I doubt not that the early country gentlemen of Mississippi longed many and many a day for the old order of things. But there was money to be made in cotton, and where there is money to be made men will soon make surroundings endurable.

The planter found that outdoor work in mid-summer was well-nigh impossible for white men; so he rode about his place for an hour or two, morning and evening, and had an overseer installed to keep his negroes at work. He found that the planter who is forced to keep his walk within the speed of a very moderate stroll and ride with an umbrella could not drink so much brandy as his ever-active Virginian ancestor; and heavy drinking became the skeleton in many a plantation closet. Likewise the colonial mansion adapted itself to its new environment by leaving off one story and appearing as a low building whose rooms were all on the ground floor, for ground-floor rooms with attics above are cooler at night. Shade proved a blessing in the way of lessening the heat, so groves of red cedar soon attained a good size, and avenues of dense-leaved water oaks laid out by amateur landscape artists half hid the home from view, giving an added density to the shade and a fresh coolness to the breeze. Now and again the native oak trees, whose ages ran into centuries, were left, and with their long beards of Spanish moss added to the tropical effect. The water from cool wells and springs of the Blue Ridge region gave place to cisterns, now built above the ground, shaded by trees and emptied by pipe and faucet, again made underneath the surface and walled with brick.

Large and square were the rooms within, and huge brick fire-places insured against the cold season. Almost as important as the rooms themselves were the wide verandas with their square white pillars. Here on summer afternoons a breeze was never wanting, and here a good part of the less active plantation life was spent.

Cotton being the one crop raised, the planter had much to do with the outside world, for his supplies must all come from the cities. His flour, corn-meal, bacon, and well-nigh all his provisions came from farther north. Hence there are none of the picturesque grist mills which one finds to the North and East, and very few of the spinning wheels and similar remains of the old order. Nearest to these are the old mill where cane was ground in the process of making syrup—an important article of negro diet—and now and then the relics of an ancient cotton gin. Now and then, too, along the bank of some steep banked, muddy stream we find where once a landing was made by steamers which in pre-railroad days came for the cotton output.

Since one hundred slaves to a plantation was no great number, one realizes that the plantation household was a large one; yet unlike that of Virginia, which was largely able to live within itself, the *familia* of a cotton farm knew practically nothing but cotton raising. Men and women slaves alike went into the field to plant and hoe, "cultivate" and pick. On many a plantation the old slave "quarters" still stand, a little row of one-story cabins, each with its chimney of sticks, so strangely out of proportion to the cabin itself as to give the impression that it was the fundamental portion of the building, and the cabin a mere lean-to.

The recreations of the planter, like his more serious matters, adapted themselves to his surroundings. Fox hunting was too energetic for the climate, but hunting with dog and gun gave a different sort of sport. Quail were, and are still, exceedingly numerous, so it came about that where the Virginian had raised hounds the Mississippian bred bird dogs, and instead of delighting in the chase he became an enthusiast on the subject of field trials. Sometimes he raised deer-dogs and shot deer, which they followed through cane-brake and forest. When the deer disappeared from his own neighborhood he followed them on occasional short hunting trips to the brakes of Louisiana or the forests of Alabama. He engaged in shoot-

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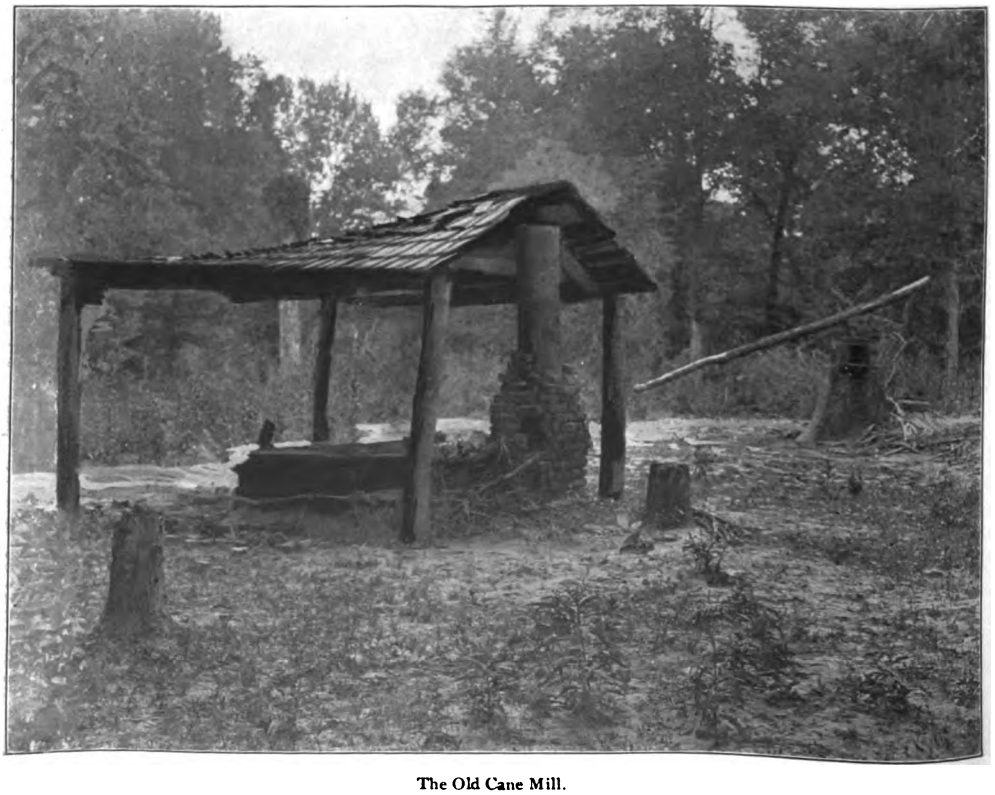
ing-matches with the rifle, went fishing for bass—which he called trout—and now and then went "shining" alligators at night, or followed the dogs and negroes through field and forest on a nocturnal hunt for 'coon and 'possum.

The women of the family had their own recreations, and none that I have seen surpassed that of flower raising. In a climate of such warmth and a region whose soil is rich, alluvial flowers of almost a hot-house delicacy will grow out of doors. Flower gardens fenced in with cypress pickets, surrounded by groves of oak and cedar, watered when the rain-fall was insufficient from a sprinkling pot in the hands of a servant, became the subject of many a strenuous though friendly rivalry. Roses of rare beauty and wondrous variety vied with the great flowers of neighboring magnolias; the flower of the China-berry appeared, and from the garden its tree was moved to the lawn to add fragrance to the existing shade. When visitors came as likely as not they were ushered into the garden, seated beneath the trees, and refreshed with milk or wine and cake, while the breeze brought coolness and came scented with odors of a hundred kinds of roses. In the cedar branches above sang the mocking bird, while from bush and tree and fence came the brilliant flashes of tanager and cardinal.

Visiting and entertaining partook of the same general scale which characterized them in the Old Dominion. A call began in the cool of the morning, and the guests departed with the shades of night. A visit began at any time and lasted for weeks. Hospitality was the commonest of virtues and guest the most sacred of words. Besides the visiting from house to house there were picnics, when the half a dozen families comprising an extended neighborhood gathered in some oak or magnolia grove on the border of some artificial lake to spend the day in eating, drinking, dancing or chatting.

It is hard to conceive the change that came when war broke out and hostile armies struggled over these plantations. Rude indeed was the awakening when this



The Old Cane Mill.

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From Plantation to Railroad.

Acadian life gave way to one of blood and battle. But with the passing of war and of the succeeding years—the years which mellowed the harsh points and reduced suffering and sorrow to romance—a new glamour attached itself to these old homes. One old plantation house I know, still stands white and beautiful on the top of a live-oak-covered ridge; the trees in its grove still show the ugly marks of minnie balls, a patch in the western wall covers the rent made by one of Pemberton's shells, and out on the veranda are the scars of bullets.

But poverty followed in the wake of war, and most of the old-time grandeur was gone. The planter must give the farm more personal attention, for overseers are expensive luxuries. There came to be less visiting, less entertaining and more work at overseeing tenants and devising means to make the new régime one of profit. One other favorite feature of aristocratic Mississippi life also fell into disuse. This was the summer outing upon the Gulf. One who walks or rides or sails along the coast of the Southern Gulf will find all the way from Louisiana to Florida old cottages and bath houses, gardens and live-oak groves which date back to early ante-bellum days. Here the élite of the cotton belt came in summer days. Here the Gulf breezes fanned them at night and the Gulf waves made a wondrously fine bathing place for morning and evening hours. Here, too, are half-forgotten tales of games of cards in which the price of a cotton-crop or of a plantation was an all-too-frequent stake. But war left too little money for such delights, and the cottages passed largely into the possession of city men.

Now it is no infrequent thing to see the owner of a great plantation riding about in the heat of a mid-summer day, giving directions to his tenants, preserved from sunstroke by the umbrella overhead—and this in the season when he was once resting on the coast.

About the house, likewise, matters have taken on a new aspect. Hired servants are less easy to train and much harder to keep than were slaves in the old régime, so the mistress of the home has less leisure than of old. She makes fewer calls, seldom goes visiting, and has forsaken en-

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tirely her morning and evening rides. She drives, or is driven, instead, and finds life full of seriousness. Her flower garden is still a source of pride. Her roses are more numerous than ever, while the red cedars and water oaks about the border have attained a size that suggests something of patriarchal age. I remember especially one such garden. It is the beauty spot of a two-thousand-acre plantation. The house was burned in war time, and the debts which came with abolition have kept the owner from rebuilding. Now a cottage—almost a cabin—is the family residence. Yet the oak grove through which winds an old drive-way would do justice to the grounds of a palace.

Little has been done in the cotton belt toward the making of modern country places for the pleasure of their possession. Tradition, the tradition of cotton raising, prevents.

One such, however, is well under way, made by Mr. W. E. Waring, of Birmingham. Mr. Waring has introduced the principle of crop rotation, and thus saves his land from the impoverishment that attends the exclusive raising of cotton. Fine stock, too, is proving successful, and greatly simplifies the problem of fertilization. As an experiment he has introduced Angora goats, which seem to thrive in the climate, and promise to furnish a very satisfactory income.

While the Waring farm is not more than two thousand acres in extent and has been laid out on a scale of much less expense than many a northern country place, it still has some points of pure adornment that the millionaire might envy. Quails fairly swarm in the wood-lots. Turkeys are to be found a few miles away; and pheasants of the English and Mongolian types, which he introduced some years ago,

Noontime in the Spring Cotton Field.

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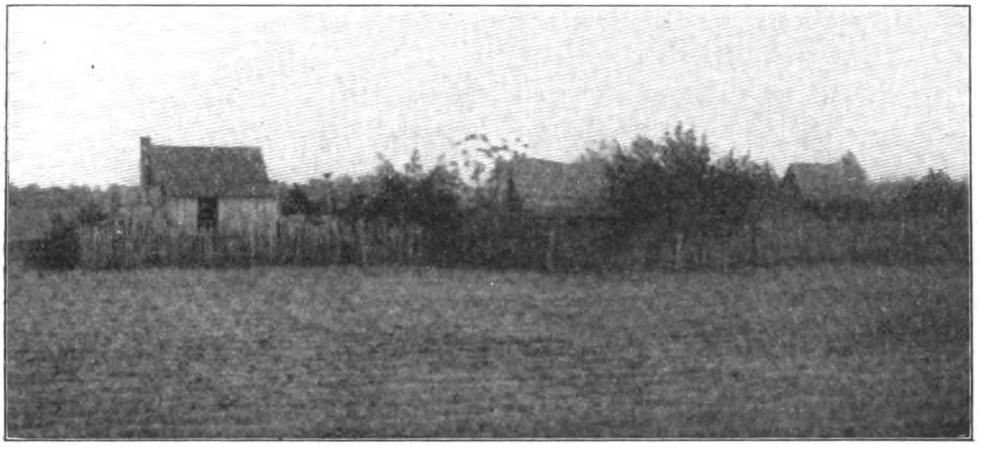
have proven a decided success. The salvation of cotton-belt country life is in the making of such estates as this. The old order must go to decay in time through the wearing out of the soil. But when others have caught the spirit of Mr. Waring and applied to Southern farming the principles which make modern agriculture remunerative, we may look for a new country life in the Old South.



"The old slave quarters still stand, a little row of one-story cabins, each with its chimney of sticks."

A GALE OFF CAPE HORN

By CHARLES G. DAVIS

ONE windy, cloudy Sunday in October, 1892, the little Boston bark *James A. Wright*, with yards chocked in, was doing some famous traveling off the Patagonian coast. Days of idle rolling about with creaking gear and groaning hull were now being compensated for as the *Wright*, with everything to her royals set, piled the white water high above her hawsepipes. A hard, cold, westerly wind had been piping a merry tune all day, and running parallel with the shore the bark was in smooth water and logging all of nine knots. That night the weather changed, and gave us a foretaste of what was in store for us off the "Horn."

The first thing I heard next morning was, "Ho, sleepers! Seven bells; turn out and get your breakfast!" How I had learned to dread that call! But when the voice added, "There's land in sight!" that altered matters considerably. Two months before, the Highlands of the Navesink had been left astern, and not a sight of land had we had since. At that hour it was hardly to be recognized as land, but when the sun dispelled the mists, the brown, rugged shore of Patagonia was in plain view, and in the background high, snow-capped mountains. All day long these mountains were in sight, and that night the bark approached the narrow strip of water called the Straits of Le Maire, which divides Staten Land from the mainland of Patagonia.

When the gray morning dawned again, we could see land on both sides of us, and all hands were called to make sail. Every stitch of canvas the bark carried was shaken out and hoisted. The captain himself came on deck, as this was a difficult passage for a sailing craft, owing to the strong winds and treacherous currents. With royals set, the *Wright* made good

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headway through the smooth water. I could hear the spasmodic whir of the taffrail log behind me, for it was my trick at the wheel, and knew by the spin of the suds past the counter she was reeling off six or seven knots.

As eight bells, eight o'clock, struck, the captain sung out for the mate to hold on with the watch for a moment, and the officers looked over toward Patagonia through their glasses. At the wheel I had also seen trouble in store for us. All along under the land the water was black with a squall of wind, preceded by a wicked-looking line of white foam. In a moment everything was in an uproar. "Let go your royal and top-gallant halliards!" "Stand by your clewlines!" "Haul down your outer jibs!" "Let go the staysail halliards!" The captain and both mates were giving orders and letting go halliards and sheets, while all hands, cook and cabin boy, were clewing up sail after sail. But the squall hit us before the sail was half off her, and the old man came running aft to watch the compass and see she held her course, for we had a lee shore under us.

It was an old whistler when it struck us, and for a few moments I could hear nothing but the screech of the wind and seething of the foam that struck the weather side of the bark, and hove her over until her lee rail was under water. Fred, one of the other watch, was up furling the main top-gallant sail when it struck, and the whole topsail on the mast proved too great a strain for it. There was a report as if a gun had been fired on board, and a tremor ran through the bark. From my place at the wheel, I couldn't tell what had parted, but knew some stay had gone, for the whole towering height of the mainmast jumped and buckled. All hands stopped work for a second, expecting to see the mast go over the side. It was the main topmast stay that had parted, one of the main supports to the mainmast, a double-wire stay as large as a man's wrist.

Up where Fred was, the mast was whipping at every jump enough to throw him off the yard. It was a job fit for three men the way the sail was bellying out, but he stowed it and came down, never knowing till then the danger he had been in.

Picked men in the meantime had taken aloft the end of a heavy mooring hawser, which was passed around the topmast and then set up to the fore bits with the fish tackle and another heavy one. Sail also had been shortened, so nothing remained on the bark but reefed topsails, storm spanker and lower staysails.

It blew hard all day, but in the dog watches reefs were shaken out as it had moderated. But when we turned out at midnight, there was another decided change in the weather, and the first order we heard as we stepped out on deck was. "Lay aft and reef the main topsail!" One sail after another was clewed up and furled, until there only remained set the main lower topsail, the storm spanker and the fore staysail.

The bark lay in this condition when daylight broke, hove to, with her head pointing south by east. When daylight revealed to us the height of the seas that were running I was amazed. I thought I had seen some pretty big seas up north, but with a Cape Horn so'wester blowing I saw such seas as I hope never to see again. And every one seemed to grow larger and larger, for the gale had only just begun, and the wind blew with such force it seemed to slide the bark bodily to leeward. How she ever rose to surmount some of those walls of solid green water was a mystery to me. The one square sail that was set heaved her over on her beam ends until her lee rail was clear under water. Braces and all the running gear blew out in semicircles and had to be continually hauled taut.

Every evening for the three days and nights the bark lay hove to; at the change of watches, the mate took us from one end of the bark to the other and made us put a watch tackle on all the braces and sheets and haul them taut as fiddle strings. Once, when we were "sweating up" the lee fore brace, the whole crew came near being washed overboard. We were bending our backs on the brace when the bark went over on her beam ends and a solid green sea broke aboard over the lee rail. It took every one of us clean off our feet, and those near the rail with only a little slack on the brace were held down so the sea broke fully two feet over their heads. By watching our chance we hauled the brace tight, and were heartily glad when we heard the last order, "Belay!" It was getting so furious that it was danger-

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to go on the lee side at all, for the wind hove the bark over every time she rose to the summit of a sea, and filled her decks with water, flush to the rails. Then, when she toppled over the crest, with a heavy roll to windward it went washing back and forth, threatening to tear the bulwarks away, and I believe would have done so had the mates not taken axes and knocked out the ports to relieve the pressure. It was the sight of a lifetime to see the water spout up in the air as it hit the rail, a huge column of white, and blow off to leeward over the sea. Water, in spray form, was flying in every direction. Every scupper was running a stream, but instead of going down, the eddies of the gale of wind would carry it up in a cloud of rain until level with the weather rail, then spray it off to leeward like snow. Every way we turned we were blinded by flying spray, and although our oilskins were lashed with rope yarns to our boots and wrists and buckled about our waist with our belts, the water found its way inside somehow and kept us chilled to the bone. To make matters worse, the galley was washed out and our last comfort, the pot of hot tea or coffee, was cut off.

That night, when it came our watch on deck, Bill and I went aft to relieve the wheel. It took two men to hold it and keep the helm from wrecking itself. There was no steering to be done. The bark wasn't going ahead a foot; she was sliding off to leeward with every sea. The two we found at the wheel had a heavy life line stretched from rail to rail in front of them. It was black as a tar-barrel except only for the bright ray of light the compass lamp threw in the binnacle box. Bill took the wheel to windward as it was his trick, and I held it to leeward. When the bark went over a sea and settled her stern it was all the two of us could do to hold the wheel. We got along all right for about an hour, and then, just as I knew by the way the bark lifted an extra heavy sea was coming, Bill let go the wheel and hung on to the life line.

What happened to me and the wheel I did not, for a moment, know. I felt a sharp pain in my left elbow, and the next thing I knew my head came into violent contact with the deck, and my feet were up in the air on the wheel box and the wheel going round like a buzz saw. Over it went one way, then back again the other, so fast it looked like a pin wheel. Then, just as it was about to spin back again, Bill grabbed it and I scrambled around to leeward and took hold again. But my left arm was powerless, and I realized I had been thrown over the wheel.

Things were certainly in a wild state when we went below at midnight, and we had to watch our chance when the water in the waist of the bark was still and then jump in knee-deep or more and flounder forward to the fo'castle door.

It was a sorry looking sight that met our eyes next morning. Harder than ever blew the wind, and the seas came rolling along in long, sloping hills as high as our topsail yards. During the morning we were sent up to put extra gaskets around the main upper topsail and then we felt a sample of the wind's force. It was all I could do as I climbed up the main rigging to hold myself away from the shrouds so as to have room to lift my knees. The wind, like a giant hand, seemed to be pressing on my back, flattening me against the rigging.

But that was not the worst of it. It would get under the back of my so'wester and lift it off my head, nearly strangling me with the string buttoned under my chin. One minute the shrouds would be up and down, and the next, as the bark rolled over, they would be like a ladder laid horizontally. It was, nevertheless, a grand sight to look from the height of the yard we were on and see the wild play of those Cape Horn seas around us.

About noon time things got so bad the captain ordered all hands to stay aft where the decks were higher, and when our watch was up we went down into the sacred precincts of the cabin, and slept in our oilskins on the polished hardwood floor. The mate that morning put three oil bags over the weather side, one at each rigging, but it was hard to see what effect they had on the water.

Every watch we had a spell at the pumps. It was so difficult to get a true sounding of the well that the mate kept us pumping to make sure the water should not gain. This was dangerous enough in the day time, while the mate kept watch on the poop and gave us warning when a "grayhead" was about to break on board, so we could jump and get into the mass of rigging

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around the main bitts; but at night it was particularly dangerous. Many a time we would be heaving the heavy flywheels around, that worked the pumps, with the water swashing back and forth knee-deep, when, without a second's warning, there would be a flash of white and a sea would break on deck that sent every mother's son of us washing into the lee scuppers, soaked to the skin and choked with the salt water. We had finally to lash ourselves to the pumps.

About two o'clock in the afternoon of the second day, the fore staysail blew out of the bolt ropes, and left nothing but a few flapping ribbons, which soon followed the rest of the sail. There was nothing we could do when it was not our trick at the wheel but wait, so I squatted in the lee of the wheel box and noticed as I looked astern that the gulls, the strongest birds that fly, were unable to make headway to windward, but kept close down to the water in the lee of the swells, while in the lee of the bark's hull, floating on the water, were a great number of them resting, and glad enough, no doubt, for the protection it afforded them. From them my gaze went forward to the bows of the bark, and I watched her sluggish rise, followed by a drunken, drowning kind of a lurch that made me think she must have water in her. The more I looked the firmer I became convinced she was slowly settling. She seemed to lack the buoyancy she formerly had, and an unconquerable dread crept over me. I tried to shake off the feeling and rally, but three days and nights of sleeplessness, worry, and hard work had dragged my spirits pretty low. I never remember feeling as blue as I did then, seated on deck with my legs stretched out and no heart to move myself.

And so another (a third) black night was passed, with the sea hissing over the bark in showers that looked like snow squalls, and all hands hung on, with their teeth chattering, half frozen in the cold night wind.

The gale was at its height that night. There was only one spot on the ship's decks where it was safe for a man to hang on, and that was clear aft by the wheel. All the forward part was sometimes under water, and every movable object had been smashed to kindling wood and gone over the side. All the ladders, water casks, and a good part of the bulwarks were gone, and one sea broke over the top of the forward house and smashed in the long-boat stowed there, smashed in the galley and carpenter shop, and as it came aft broke in the cabin doors and skylight. Then it was that the life line came in handy, and saved us from going over the bark's stern into the sea. For all that great tidal wave, as it rolled aft over the deck, struck us square in the chest and poured off over the stern.

At daybreak, things looked a little brighter overhead. The captain said the barometer was rising, and his face looked much more hopeful. For about an hour it blew with apparently more violence than at any previous time; it was a wild, furious outfly that tested things aboard the bark to their utmost, but it did not last long, and then there came a temporary lull.

We wore ship that afternoon, and started back for Staten Land. The bark had been blown just two hundred miles to the eastward during the four days she lay hove to. As we neared the Horn again, ships and barks were heaving in sight on all sides. One outward bounder came along with both his top-gallant masts snapped off at the caps, another minus his jibboom, and a large bark with his mizzen carried away. Then the sight of a homeward bounder sent a pang of regret to our hearts, to see him under a press of sail making a fair wind of a breeze that had kept us practically hove to, rolling rails under, with deck and scuppers running with water. I was astride the fore upper topsail yard at the time making up gaskets. It had been snowing and hailing so hard I had to turn my back to it as I worked, and the hail rattled like pebbles against my stiff and frozen oilers. When the final squall blew over, I heard the mate below me on the fo'castle head sing out, "What's that on the weather bow, Davis?"

I looked, and there was the same rugged, snow-topped peaks of Patagonia we had left a week before.

"Land!" I shouted back.

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FOREST FABLES

IV—THE STORY OF THE GRAPE-VINE

By ALOYSIUS COLL

MANY years ago, before the jungles hung heavy with the tangle of the vines, and before the high trees groaned under the veil of ivy leaves, there grew on a little hillock a tender grape-vine. Only a tiny seedling it was. A blushing pink neck showed between two leaves, that stood out like the frills on a little girl's frock, or the wings on a butterfly. Down in the moist soil its slender toes dug into the roots of big trees that stood over it, and so held itself from mounting upward to the sky on the breath of summer winds.

Sometimes it longed to let go, but nature did not wish it to turn into a butterfly. The great world had many of these, which fluttered over copse and dell, and settled here for honey and there for a bath in the dancing sun. No great voice spake out to the little vine, to tell it of the high mission it had. No mighty thunder whispered low promises in its ear. No man passed to say to it that the world needed it. No man showed it the slopes covered with vineyards, where women plucked the clusters of purple fruit. In the visions of the world there was shut out from it the scene of glad carnivals, where fine men and beautiful women pledged their love, one to another, over the rim of the crimson bowl.

And so the vine, which knew nothing of the world beyond the one little valley by the side of which it was born, could not be comforted. Besides, it grew lonely, and longed to ask the trees and the grasses and the hard rocks what they did in the world.

One day the vine crept out a little, and moistening its length from the dews and the summer rain, stretched and stretched, and crept out a little farther. By and by, it could look over the edge of a jutting rock. Below was a sapling, young like itself.

The vine's head grew heavy watching, and nodded far over the jutting rock now. Here was a companion! thought the lonely vine.

"How do you do?" began the little vine, very ceremoniously.

"Good morning," answered the sapling.

"I should think you would come up a little higher," said the vine. "Aren't you very lonesome down in the valley? If you had any ambition, you would like to have your tops waving up in the sky, like your big brothers."

"My brothers were once low shrubs down in the valley, too, and I judge didn't have any meddlesome vines roaming about to offer suggestions about lofty ideals. I can't see that you have gotten up very high in the world. Everybody knows, too, that when you do make any effort to get up you only fall over and cringe about in the leaves, like that snake which coiled himself at my roots an hour ago. So don't preach."

"I'm not preaching," retorted the vine, "and I don't feel any lower because you have attempted to put yourself so far above me. Just yet, with all your talk, you are four lengths below me. Why, a chipmunk this very morning leaped off this rock where I cling, and sailed straight over your head without so much as rumpling your hair."

And so they fought and had wordy wars in the forest—the grape-vine and the oak sapling. And as the days passed, the sapling grew nearer and nearer the rock where tumbled helplessly about the grape. And farther up the hillside there were other grape-vines—fathers and mothers of the little vine by the hanging stone. And they too rolled helplessly about on the ground, for at this time, it must be remembered—long, long years ago—the grape-vines were only shrubby stocks, which had not learned to climb.

One morning, when the little vine first saw the sun come up the valley, there was a faint shadow fell upon its face, and looking, lo! there was the sapling's head, close up to it, and a little towering above it. At last! the sapling could laugh.

And laugh it did. "Now, poor deluded child of the forest," roared the green

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sapling, "are you still so noisy over high ideals, and still so proud of your elevation? You know it doesn't pay to lie on one's stomach and preach so much philosophy to another upon his feet. And, by the way, remember the farther you creep the lower you go, for I see that you cannot help falling over that rock, and tumbling down to the gulch. Shame on you! little vine, to hang your head so."

And indeed the poor little vine did hang its head, and true it was that every inch that it grew added only that much humiliation to it, for it could not lift its head, and blundered on and on, over and down the jutting rock, hearing daily the titter of derision from the green sapling, and the echoes of laughter from all the other trees in the mighty forest.

But one day a reverse wind blew up the valley. All the tall trees bent before it. The ferns leaned over to the grass, and the grass knelt down and kissed the pebbly soil. And now the wind struck the green sapling!

Proudly it tried to buffet back the wind. It tossed about, and struggled to get free from the strong arms of the breeze, which little by little bent it down and over to the jutting rock.

"Oh, please don't humble me to the miserable little vine," groaned the green sapling. "Please do blow down the valley and I'll willingly bend to the very feet of my brother trees; yes, into the very dust that you are stirring up, and the sands that are sifting through your fingers."

But the great wind said no word. He only blew and puffed, and whistled a tune while all things bowed to him.

Not all things! for the little vine had never lifted its head high from the turf, and the great wind only stirred it a little, and lifted it higher from its humble place over the rock.

And lo! the humble vine was lifted high enough to hook one slender finger upon a branch of the green sapling.

"Now I go with you to the clouds," cried the little vine, clinging tighter and tighter, and curling around the twigs and the branches more fingers. Try as the tree did, it could not shake off the vine. Summer after summer it grew and grew, but the grape-vine hung close, and stretched and stretched, till now deep down the valley there is a giant oak, and clinging to the topmost bough is a mighty grape-vine, trembling and hanging to the ground.

And all over the world the grape-vines heard of the wonderful feat of their wise sister, and reached out and clung to green saplings, till now the forest is strung with millions of the graceful vines and the jungles are tangled with them, stretching, even as the proud trees stretch, to the sky.

THE TRAGIC TALE OF TWO GOATS

By WILLIAM E. CARLIN

IT was a day in late October. The haze of an Indian summer softened the rugged outlines of the mighty Cañon of Bear Creek, blending in a dreamy harmony of color the sombre firs, the gray, purplish granite, the vivid patches of red and yellow.

A peaceful quiet pervaded all nature, disturbed only by the ripple of the creek below us, and by the occasional mellow note of the leader's bell, as our pack train swung slowly along the trail, which led over the main divide of the Bitter Roots.

From my horse's back, idly viewing the beauties of the scene about me, half dreaming, half awake, I was suddenly roused from my reverie by the halting of the horse in front of me; upon looking ahead, I saw Wright beckoning me to come. There was something in his manner which led me to dismount quickly, and to draw my rifle from its boot. As I reached his side, he pointed to a cliff above us on our left; there, on a wet, mossy ledge, stood four mountain-goats, their white forms standing out against the dark rocks, their

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heads close together, looking down at us in stupid wonder.

At the first glance, they appeared no more than two hundred yards away, but a more careful survey of the ground showed us that it was at least four hundred yards; so, slipping quietly into the brush, we worked our way carefully, over slide-rock and through thick alders, for some minutes, until we came into a little opening. Climbing upon a boulder, I could just see over the top of the brush.

The goats had not moved, but started as my head came into view. My position was an awkward one to shoot in, and my footing insecure, but there was no time to lose; so taking a quick aim at the largest of the goats, which I took to be a Billy, I fired, and saw the dust fly from a rock just under his belly, having underestimated the distance, which was probably over two hundred yards. I had nearly lost my balance from the recoil, but throwing in another cartridge and holding just above the shoulder, I fired again; the big Billy staggered, slipped, and rolled over the cliff, bouncing from rock to rock until he struck a small stunted fir tree, where he lodged. In the meantime, two of the goats had disappeared, and the last was almost around the corner of rock, when I fired at him, breaking his left hip; he slipped back, then, regaining his foothold, started limping up the hill. The next shot, the last in my magazine, broke his back, and down he came tumbling from the ledge into the slide-rock below. He was a fair-sized Billy, with good horns, which had, however, been somewhat scarred and scraped by contact with the rocks in his fall.

Leaving Wright to look after him, I climbed to the tree against which the first had lodged, and found him dead. He was a much larger animal than the other, really a magnificent specimen. It was with some difficulty that I got him down, though with silent thankfulness that he had so lodged, for, had he fallen on the rocks below, his horns might have been injured.

Before taking off the skins and heads, we dragged the goats down to the trail, where, beneath the spreading branches of an old fir tree, we photographed them. It was then after two o'clock, and as we had yet several miles to cover before reaching our camping ground for the night, we made but a hasty examination of the wounds. They were very severe, as we had always found them to be when made at moderate ranges by the 30-40 soft-nose bullet.

Next morning we crossed the range, and two days later reached Hamilton, Montana, where I developed the plate made of the goats. To my amazement, they both hung in mid-air, from the branches of some beach trees. It was, of course, a double exposure; but how account for the beach trees? All at once I recollected having made this exposure before going West. Evidently, I had neglected to develop it, and it had been accidentally replaced in the box of plates I was then using. Hence the unlooked for combination of the goats and beech trees.

In November, we went to the Flathead Reservation to hunt ducks and geese, and to have a try for goats on the rugged spurs of the Mission Range, above McDonald's Lake. Here we had very good sport until the heavy winter storms set in, covering the steep mountain sides with snow and ice, making rock climbing dangerous; whereupon we returned to our comfortable quarters at the Ravalli Hotel, in Hamilton, to spend the winter; for Wright and I were planning to cross the range on snow-shoes in April, to photograph game on old man Long's trap line.

One day in March I was surprised to see Long's partner, Mac, walk in. He had been sick, and, needing medical help, had worked his way out of the hills, with the assistance of a prospector from the Salmon River Country, who, with his entire outfit, had been snowed in the preceding fall, and forced to pass the winter in the mountains.

Mac had met with a strange experience on his way out, when about four miles from the Bear Creek Summit. It appears he had stooped to tie his snow-shoe, and was rising to his feet, when his attention was drawn to some movement in a snowy hollow under the heavy branches of a tree, about fifty yards away. The next moment three cougars bounded out and ran across the slope, disappearing in the timber near the creek. Curious to see what they had been up to, he went to the spot, and to his horror found there the remains of a man. The body, he said, had been dismembered, and only bloody bones and a few torn bits of clothing lay scattered about in the snow.

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He had not waited to bury what was left of the unfortunate man, but before hurrying out to tell the news had blazed the tree all around, and noted its exact location near the trail. Now Mac's story caused much excitement in the valley. Thrilling accounts appeared in a local paper, and several mountaineers threatened to organize a party to cross the divide, and give the dead man decent burial. However, nothing was ever done, and the poor man was forgotten.

On the seventh of April, Wright, Herrick and I shouldered our packs and started up Lost Horse Cañon. On the summit we were caught in a heavy blizzard, and were delayed there two days. It was about noon of the sixth day out, that, having dropped down into Bear Creek Cañon, we came across the very tree that Mac had blazed, for which we had been keeping a sharp lookout. On nearing it I recognized, on the hillside above, the ledge from which I had shot the goats the fall before. As I drew Wright's attention to it, the truth flashed upon us both—in other words, Mac's "remains" were the remains of our two billies; the bits of clothing were what was left of one of our old gunny sacks.

Truly, very raw material for such a tragic tale.

IN THE HAUNTS OF THE HARE

By EDWYN SANDYS

UNDER the general head of "hare hunting" may be grouped several forms of a sport very popular in widely separated portions of this country. To the Briton, the mere mention of a hare calls up memories of coursing and that blue ribbon of the sporting canine world, the Waterloo Cup, which, along with other important fixtures, has for so long aroused the enthusiasm of our brethren over-sea. Until a comparatively recent date we had nothing of the sort on this side, but the natural advantages of vast tracts of our Middle West and Far West country were too apparent to be long overlooked after the tide of permanent settlement had once fairly set westward. Among the most useful class of settlers were sturdy men, and frequently moneyed men, from the sporting counties of Great Britain. These men had the characteristic nomadic and sporting instincts strongly developed—in fact, the promise of a wholesome freedom and unlimited sport was the magnet which drew many of them to our West—and once there, it is not surprising they quickly took advantage of their unequaled opportunity.

The instinct to tackle things that can fight, to pursue things that can run or fly, is absorbed by the Briton with his mother's milk, and one of his dearly loved pastimes is coursing. Hence, he speedily noted the possibilities for one of his games, after he had become acquainted with that weird brute *Lepus callotis*, commonly termed the "jack-rabbit." This creature can run like the wind; it inhabits the great plains, which afford fine footing for horse and hound and a clear view, and it was natural that coursing under special rules to suit the new field should follow. How wonderfully this sport has flourished may be learned from a glance over the reports of the many important fixtures annually decided. In its own smaller way coursing now receives the same close attention as racing. Representatives of the best greyhound blood of Britain are to be found at the head of many kennels, and the breeding, handling, and running of the dogs are in the hands of men as keen and clever as any that ever sent out a winner of the storied blue ribbon. That the sport will continue to flourish goes without saying—the nature of our western country and the temperament of our western people guarantee that. I might say, in passing, that hawking the jack-rabbit may yet become one of our most attractive pastimes. I have repeatedly seen wild hawks, both falcons and harriers, chase the "jacks," and every time I have seen this the idea of trained hawks

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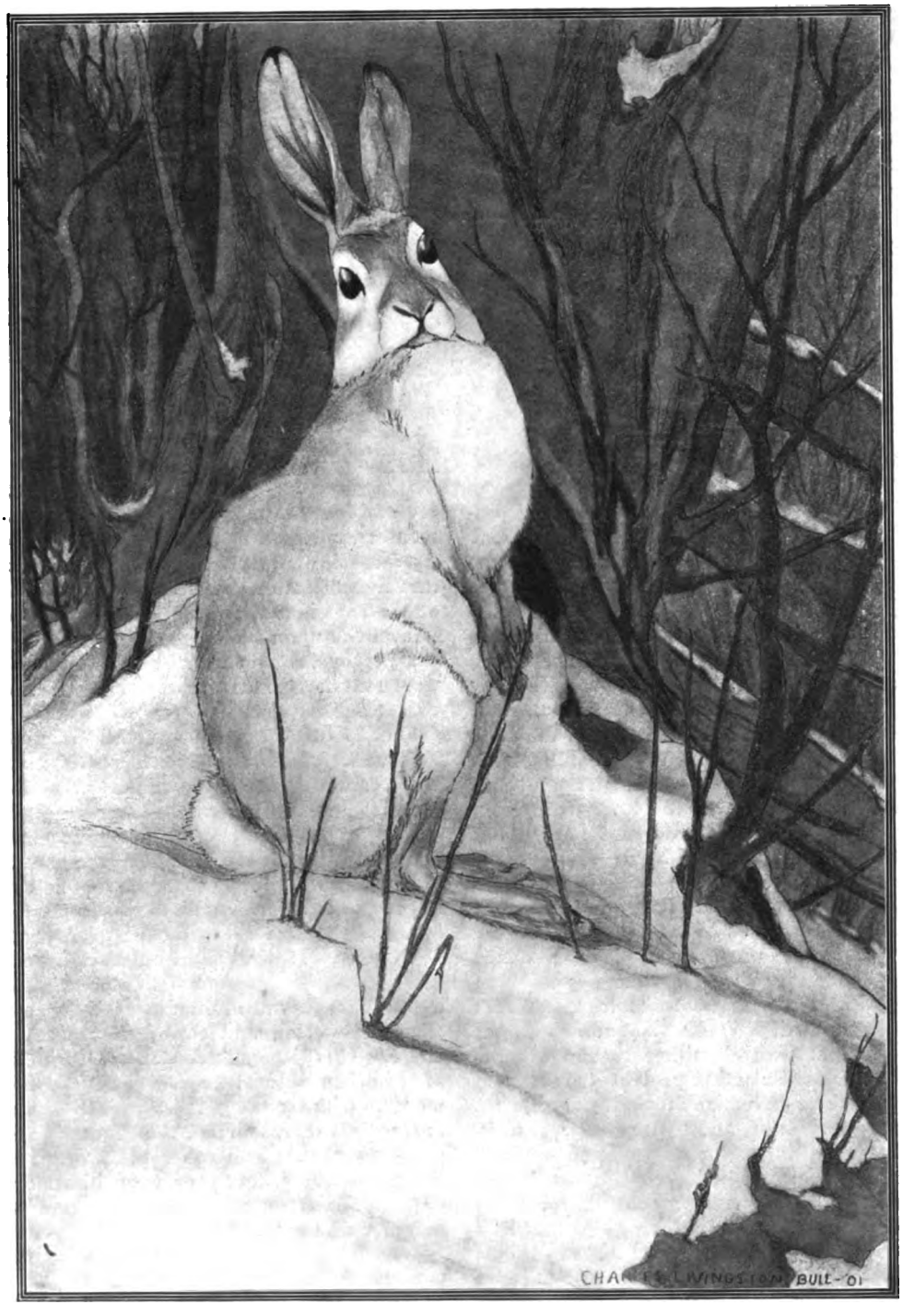

"Child of the snow that he is, he makes his home in the wilds, fearing neither piling drift nor biting blast."

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merry mounted party has arisen like a wondrous pleasing picture. No doubt it will come in time, for the outdoor girl is queen, and hawking would give our American Diana a grand opportunity to spread her conquests farther.

The well known hare of the East and North, the northern hare (*L. americanus*), the so-called "white rabbit," is good game in his proper season, and he possesses the great advantage over the "jack" of being also good eating. Child of the snow that he is, he makes his home in the wilds, fearing neither piling drift nor biting blast. He loves the unbroken forest, the snarls of tangled thicket, the twisted wreck of the tornado, the dusk swamps, soundless beneath lonely hills. This hare, like the ptarmigan, furnishes a beautiful example of Nature's loving provision for the welfare and safety of her feebler children of the North. In summer the ptarmigan wears a mottled coat which admirably blends with the prevailing tints of the lichened rocks of its home. Upon the approach of winter the bird's plumage gradually turns white, while a growth of hair-like feathers upon its legs and feet thickens until it forms the snow-shoe foot —the best possible thing to support the bird upon snow and to protect its feet from frost. The hare, lacking wings, requires better protection, and Nature attends to it. The prevailing color during summer is a grayish brown, which is the most inconspicuous of tints among roots, shrubs, and the various surroundings of the breeding season. The hare's special gifts, without which he would speedily succumb to various foes, including climate, are: shape, speed, coat, and foot. His long, narrow body is designed to easily pass between close-growing saplings, while his speed is quite sufficient to insure him a fair chance of escape from his deadliest foes. But his form and fleetness would be well-nigh useless in deep, loose snow, were it not for his peculiar foot. This in winter becomes a veritable snow-shoe, a truly marvelous contrivance which enables him to patter at will over drift and level which would otherwise hold him fast, a helpless prey to rapacious bird or beast that chose to attack. Nothing better for their purpose than his furry pads can be found among Nature's many marvels. His coat, too, plays an important part. Thin and cool during the heated term, as the cold weather approaches it thickens apace until it forms one of the lightest and warmest of coverings. The wild men of the North were quick to appreciate its valuable features, and wove strips of it into the coziest of wraps. But the warmth of the coat is not its sole peculiar feature. Brown fur upon snow would be entirely too conspicuous, so Nature meets the difficulty with another beautiful provision. As the coat thickens as a guard against cold, it gradually turns white to match the increasing snow. The brown pales to a cream, and the cream whitens till only a darkish stripe down the springy back, and patches about the big eyes, remain to tell of the summer garb. Soon these too fade until the hare is either pure white, or so nearly so that he can squat amid the snow and so closely match his surroundings as to escape even practiced eyes. If by chance discovered, he can speed away upon his snow-shoes and in a few bounds vanish in the snowy woods where every log and stump is a perfect cover. This is well, for in addition to man he has natural foes which know not mercy. Chief among these are the lynx, fox, wolf, fisher, marten, the great horned and snowy owls and other birds of prey. Other creatures, too, prey upon him more or less, for if once cornered he offers no defence whatever.

"A long, white shape curved from the brush."

Most of the hares which frequently glut our winter markets are victims of the snare. A few are trapped in other ways, but their number is insignificant in comparison to those which die by the craftily placed wire. To snare a hare is, of course, an unpardonable thing from the sports-

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"The track led across the open to a big brush pile."

man's point of view. The habits of the animal render it such an easy victim that only a thoughtless boy, or an out-and-out poacher, would bother himself over its capture. Like the Virginia deer, the hare has regular runways along which it travels through its favorite swamp, or other cover. All the poacher has to do is to locate these runways by the tracks in the snow, set a few snares and wait for the hares to do the rest. The snares are fastened to "twitch-ups"—springy poles, sufficiently long and strong to lift a hare a few feet off the ground. The wretched victim sooner or later comes hopping along the runway, his head enters the noose, and in an instant he is jerked off his feet and hanged by the neck until he is dead. The object of the pole is twofold—first, to strangle the victim, and second to lift the body beyond the reach of any prowling creature which might fancy cold hare. The whole business requires about as much skill and is about as exciting as the purchase of a frozen hare from a city dealer.

The sport of sports with the hare is to shoot him ahead of smart hounds; but there is another way, and I have followed it of a winter's day with considerable pleasure. It is still-hunting, in other words tracking the hare to his "form" and shooting him as he bolts. The man who craves rapid action in his sport may smile at this, yet I have found considerable pleasure, much opportunity for interesting observation, and a lot of healthful exercise in it. A still, bright day after a smart snowfall is the best. Then all tracks are fresh and all woodlife, housed during the storm, is now active. To the experienced sportsman the work is comparatively easy, for the trained eye sees the world as one great white page with a series of short stories—some pathetic, many tragic, but all interesting. A leisurely start is as good as any, for wild life sleeps late these wintry mornings. So somewhere about nine o'clock I leave the town and strike across the broad level of a farm toward the gray ring of woodland. There is walking to be done, and the costume is well chosen. First, medium weight all-wool underwear and honest, home-knit socks. Over this a suit of gray corduroy, the trousers being roomy to the knee, thence fitting the calf like drawers to the ankle, where they are tied with soft tapes. Three smoked pearl buttons at the knee give the appearance of knee-breeches. The vest is snug-fitting at the neck, with no collar; the coat is the ordinary sack style, with a few extra pockets. The boots are waterproof tan, with lacing over the insteps and at the back above the calf. The hat is corduroy. When donned, this costume is neat and workmanlike, and withal very comfortable. It would look well on top of a good horse, and it is first-rate for walking in snow. The gun is a light twelve-gauge of good grade—the handiest all-round arm manufactured. The dozen or so shells go into a pocket; a tasty sandwich into another; pipe and "baccy" into a third, while the half-pint flask fits over the hip. The entire outfit is admirably adapted to a long and perhaps rough tramp.

The man who still-hunts a hare must be a good walker and one of those favored

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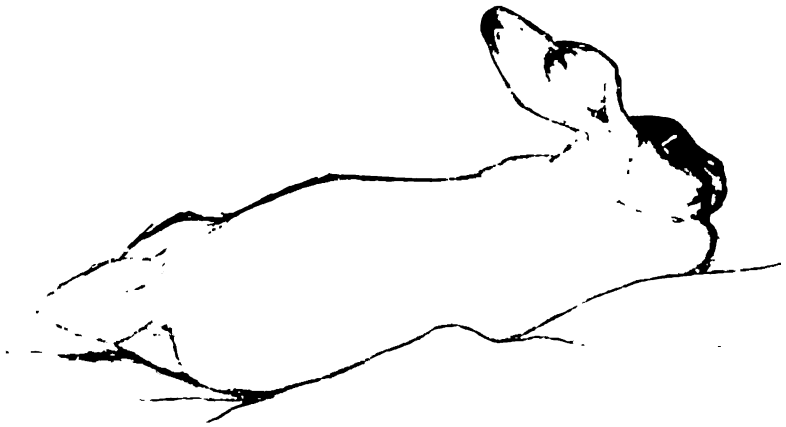

few who do not measure their pleasure by the amount of quarry bagged. The time for the sport is after the regular shooting season, and while it has pleasures all its own, it does not appeal to men who want to be forever pulling trigger. From three to a half dozen hares would mean a good day with a liberal share of honest tramping.

A mile across country settles breakfast famously, and as I reach the edge of a low-lying patch of maple thicket I feel in fine fettle. There are perhaps one hundred acres of good ground where hares are known to be, so I tramp along reading the snow's morning news as I go.

There are many local paragraphs, all of more or less interest. "Mr. and Mrs. Fox Sparrow and family have taken that snug cottage, 'The Briers,' for the winter." "The Messrs. Chickadee, Woodpecker and Nuthatch are in our midst. They are expert prospectors and confidently expect some rich finds. They are at present exploring the big swale." "There was an unseemly row at a dance last night, which might have ended seriously if our esteemed night watchman, Mr. G. H. Owl, had not arrived in the nick of time. He at once arrested the notorious Molly Cottontail and hauled her before the Beak. She was promptly put away." "Householders are warned that the well-known criminal, Brown Mink, is hanging about this neighborhood. Our readers will do well to look to all fastenings." And so they ran on in the usual backwoods style.

To take it seriously though, this reading of the snow is a wonderfully interesting thing. Here the delicate tracery of tiny ·t tells where the seed-laden rag-weed bent low. Yonder a regular stitching across a tiny furrow betrays the feet and dragging tail of a woodmouse; again a series of small prints marks the course of a red squirrel to and from his hidden granary. Trim close-crowded marks tell where a bevy of quail has followed the zig-zag of a sheltering fence. At the edge of the swale a single row of round, evenly-spaced prints marks the route of a fox, and farther on the sign reads that he tried for a grouse and missed. All the doings of the night are truly recorded, and he who loves the wild things and their affairs may be pardoned for lingering over this, his morning paper.

At last I find something which directly concerns present business. It is a rough triangle—the apparent apex two small prints, the sides two long ones. It is the track of a hare, and the distance between the prints proves he was going at speed. A green hand would almost certainly follow the back track. When a succession of big V's indicate a route, the eye naturally follows the way the points direct. This is wrong. I have a vivid recollection of the first time I followed a hare's track. It led across an open to a big brush pile and there the trail ended. All about was virgin snow. That the hare was as good as mine, I never doubted, so I kicked the pile. Nothing showed up, so I mounted the pile and jumped on it till it rocked to its base. Still nothing appeared; somewhat mystified I began to remove the brush, a branch at a time. This, with the gun in one hand, was slow work, and every time a lump of snow would shift I'd spring back and bring the gun to shoulder, for I knew that hare would go like blazes when it did go.

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When I had got down to the bottom of that brush pile and had found no trace of a hare except the "form" where he had laid up overnight, I was a wiser and madder mortal.

But to return to the trail. The track told its story. The maker of it had been going fast, but as there was no sign of any following track, the hare, presumably, had been bent upon some urgent private business, and might or might not be anywhere within a circle of one hundred yards. The thing to do was to follow the trail and find out. Now, following the trail of a hare through heavy cover is no joke. He may have visited every outpost of the swamp during the previous night, and again he may not have traveled a quarter of a mile all told. In either event one moves as though still-hunting deer, ever sticking to the track and keeping a sharp lookout in front. When the hare shows, it will be with an easy leap from some shelter, which will be followed by a rush through the cover which carries the quarry out of sight with an astounding celerity. So the gun must be ready for rapid action. As a rule the hare will be squatting under a brush pile, or log, or under a fallen top, but quite frequently a cleft between roots, or the interior of a hollow stump, forms the hiding place. It is odds on that the hare sees its pursuer before being discovered, hence it is as apt to start from almost under one's foot or behind one's heels as anywhere else. All wild creatures when hiding appear to know the instant they are detected, whereupon they immediately make off. I have often walked almost over a crouching hare, only to start it when I turned to look for the lost track. Needless to say it is very seldom the white fur is seen amid the snow before the creature moves. When it finally does start, one may be astride of a big log, or snarled up in some brush, or in any one of a dozen possible difficulties which may interfere with the necessary quick, sure shot. As a rule, however, one sees a hazily-defined, speeding shape, and either bowls puss over there and then, or realizes the force of that ancient warning—"First catch your hare." This sort of still-hunting may lead into all imaginable forms of bad going—through brush, where dislodged snow is forever falling; through thorny stuff which may rake hands and face, and, worst of all, across ponds of unknown depth, the icy covering of which may or may not bear a man's weight. It is therefore well to be a bit shy of nice, open levels which offer the easiest of walking. They are almost certain to mean ice and more or less water. To a lone hunter a ducking in the woods is no joke, and it may prove quite a serious matter, for, as a rule, getting in is a heap easier than getting out.

So much for the still-hunting. It may be that the track must be followed through half a hundred twists and doublings, which in all demand more than a mile of trailing. It may be that the hare is missed the first chance and must be again trailed to wherever it chooses to stop. If so, there is surely a fresh track and a hare at the lost end of it; and patience will bag that hare. I am free to confess that I like the silent prowling, the keen watching, the side glimpses of other small life, and that smack of the long agony of hope deferred which are sure to be the portion of the still-hunter.

Hounding hare is quite another matter. It has its share of action, its sweet bells jangled out of tune of dog-voices, its tense situations, and, upon good days, its sufficiency of quick, accurate shooting. It has another advantage too; our modern Dianas may share it, 'un she be so graciously disposed. For instance:—

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An Expectant Moment.

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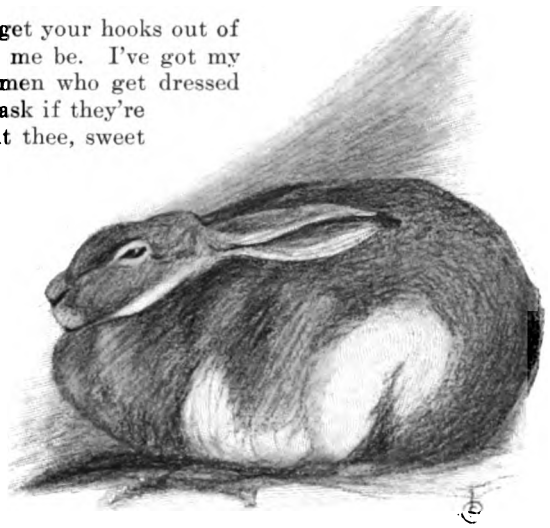
"Ed, you've just *got* to take me! I'm smothered—I want to get outdoors—I'm ready—I'll drive—I'll do *anything!*" and—here the voice buzzed like a yellow jacket—"if you *don't* take me, you sha'n't have my dog—so there!"

"All right, my gentle guinea-hen. That tongue of yours would be a grand thing on a cold trail—it's a cursed shame you didn't get four legs when they were passed round—I'd take you sure then," I retorted.

"You're just the de-ar-est old thing in the——" she began, but I cut it short with:

"That'll do now!—get your hooks out of my gray hair and let me be. I've got my opinion of young women who get dressed all ready before they ask if they're wanted. I don't want thee, sweet cousin, but I need thy dog!"



Reader, especially female reader, *don't* raise your eyebrows and sniff. The young woman is a spoiled pet, that's all. Anyway, I'm old enough to be her father, and I taught her to shoot. During some paretic interval I gave her my one rabbit-dog, an overgrown beagle, by name "Boz," and a rare good one he was. Later, I tried to beg him back and was sent to Coventry for a week. So there you are.

Within half an hour nag and sleigh were ready, and away we went. There was just enough snow for good slipping, and cousin's small hands kept the nag at his best pace until she pulled him up at a farm house some five miles from the starting point.

As we tramped toward the chosen ground, a big, almost impenetrable swamp, surrounded by woods, she led the way. I looked her over, and she was good to see. Straight and trim as a young spruce, she looked the true sportswoman. The gray "Fedora," with its wood-duck feather, closely matched the easy-fitting cord coat and short skirt. She was a symphony in gray, with which the stout, oil-tanned boots and dull crimson tie had no quarrel. Easy in every movement, she swung along with a business-like stride which would tire many a man, and as I watched I thought with pleasure of the thousands of golfing girls, wheeling girls and other girls of the rational school—the mothers yet to be of a sturdy race, which, so long as it sticks to the great outdoors, will never lose its Anglo-Saxon might. The sixteen-gauge upon her shoulder was as a feather-weight to that graceful figure, lithe, a toy to the strong, small hands and firmly-muscled arms.

Where an old road traversed the swamp were our vantage-points, and we took stands some fifty yards apart. "Boz" had required no instructions—he was already somewhere in the cover searching for a fresh track. Lil brushed the snow from a log, rested her gun against a sapling and sat down; I filled my pipe, and stood peering into the heavy brush.

For perhaps twenty minutes we waited, then a single sharp bark came to us. Lil's clear soprano answered with a cheery, far-reaching cry, then the dog barked again. This was his signal that he had located some trail worth following. Presently there rose a sudden storm of music—a confusion of dog language, as though a dozen canine tongues had been loosed together—then a startling silence.

"Look out—he's started!" I called, and the gray figure straightened up, gun in hand.

For a few seconds we listened in vain, then came the welcome message. Like the Switzer's call it clove the snowy aisles of silence until the forest rang with sweetest melody. Louder and clearer it swelled till one might well marvel that one small dog's

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throat could cause it all. Then it muffled as he swept through some hollow, only to rise and ring like a bell that flings good news to a waiting host. It was evident that "Boz" had got well away with his game and was driving at top speed.

A long circle, a moment of doubt, and then a rapid insistent tonguing, steadily increasing in power, told that the quarry had decided to cross the road.

Now came *the* moment of hare shooting. The animal might take the road for a distance, but in all probability it would burst from the cover like a puff of wind-driven snow, take two long leaps in the open, then dive into the opposite cover with the headlong abandon of a big frog going to water. Sharp work this, for there's no telling how close behind the dog may be.

We were both at the ready, as we had need to be. A roar from the dog told that for an instant he had sighted, then a long white shape curved from the brush to the road and rose again with rubbery ease. Smooth, silent, swift as it was, the girl's trained muscles beat it. I whirled about and humped my back, for small shot stingeth like an adder, and even a glancing pellet is bad for one's eye. As I dodged my ear caught the quick, vicious squinge-squinge of smokeless powder. It was followed by a ringing note. No mistaking the triumph vibrant through that call—the small hands, the keen young eyes had done the trick, and the old fool teacher felt prouder than if he had done it.

Mutely eager, the dog flung himself across the trail to make sure, then his sickle-tail waved slowly and proudly as he paused and snorted gruffly over something in the snow.

"Did I miss him?" called an anxious voice.

Up went the dog's nose and he jangled out—"We—killed—the—hare!"

"All right!" I said as I picked up the fat fellow and drew the long body through my gripping left hand—a stripping process that is good for dead hares. His ears looked like the top of a pepper-caster, and I gloried in the swift, clean work. Then I carried the prize to the radiant owner.

Rail against it as ye may, oh prudes, but I believe in any rational sport which can light the spark of triumph in a woman's eye and send the rich red of pure delight to her cheek. As I looked at her and heard her ecstatic "My, he's a fine fat fellow!" I thought any decent buck rabbit ought to welcome annihilation from such a source.

Being a man, and consequently more or less of a brute, all I said was:—

"Awfully sorry, Coz, but I couldn't help shooting ahead of you; weren't you a trifle slow?"

She looked me squarely in the eye for what felt like an hour, then the words came like the final hammer-taps on a rivet—

"Y-o-u B-r-u-t-e! And you standing there with everything pulled in and your back humped like an old mud-turtle, when I wasn't holding within ten yards of you!"

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SKATING ON DUTCH CANALS

By C. EDWARDES

THE essentials for a skating tour in Holland are few and simple. You must have fair lung and leg power; and that is about all. Judging from the Dutchmen and Dutchwomen themselves, any kind of skates is good enough. They wear old-fashioned wood and steel articles, with well-curved points, the steel embedded in wood. Dutch pictures of the eighteenth century show that these skates have not been improved for about two hundred years. The hardy youngsters fasten them to their stockinged feet, and ask for nothing better. They and their parents and grandparents admire the foreigner's skates of solid steel, but stroke their noses at the cost, and are perfectly content to take all risks on their inherited treasures, tied to the instep with common tape. Two or three pairs of these native skates may be bought new for a dollar. When in December, 1890, young Donoghue, of the Manhattan Athletic Club, went to Holland and carried off prizes in all his contests, his skates excited as much enthusiasm as his achievements. They were of the Norwegian pattern, on high steel blades. In falling snow their advantage over the national skate was obvious. For touring also, on ice warrantably good for scores of miles, they may be excellent when speed rather than sustained ease of movement is desired. Otherwise, the Fen runners with the steel prow lifted three or four inches beyond the toe, or even the Dutch skate itself, seems preferable. In the brown violet-tinted heath lands of Drenthe, poorest and most backward of Holland's provinces, more than one rustic thawed out of his boorishness in contemplation of my runners as we rested together over our penny glasses of gin, and passed judgment on them thus: "They are of the best!" The urchin who at common times would cry "De Wet's coming!" or "Boer! Boer!" after the Anglo-Saxon's back forgets South Africa when he and the Anglo-Saxon are forging ahead on the same canal with reedy edges, cracks to shun, and nice, smooth reaches to race over. He is then all for compliments of a sort addressed to the Anglo-Saxon's feet.

But it may be asked, how about the snow? Does not that spoil the sport on the canals? It does, of course, for an hour or two if it falls in the night; but they have an excellent system of parcelling the canals into sections which are taken in hand by energetic men with brooms and kept in good order. These red-nosed and rugged sons of the soil are a quaint feature of Dutch canals. You find one of them on the lee side of every bridge, and he is quite content if you drop him one of those small copper coins (one-hundredth part of a guilder), which seem minted mainly for winter use. In a run of forty or fifty miles, one scatters a goodly number of these coins, conscious that the gifts bless both giver and receiver. It is quite worth remembering, too, that in the improbable event of an immersion in one of the deep trunk canals there may be no one within sight or hearing save a blue-scarfed and rather tattered sweeper. But for one of them I should have gone to the bottom of the Zuyder Zee in January, 1901.

A more serious nuisance than snow are the heavy drays which in a severe winter are to be seen on the canals. You meet all the world on the ice, from the parson skating to a sick parishioner, his coat tails flying in the wind behind him, to the country women with eggs and live chickens balanced on their heads; from the chubby urchin of three or four, strapped to a chair, to his venerable grandmother, still sliding a lusty leg and nothing defective in wind or nerves. Hand-carts, too, of different kinds, with loaves and joints and vegetable produce! The errand boy skates blithely behind his goods and steers them well. But when it comes to furniture vans on runners, pushed by two or three sweating porters, one feels that the canals might protest. These risks are taken only in severe winters. The ruts they make in the ice are a distinct annoyance, and even danger, especially if you are still afoot after sunset, gliding under the moon which then makes Holland astonishingly romantic, even as it adds many a charm to the rosy-cheeked village maidens with silver skull-caps on their heads, who speed

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along hand in hand singing in unison with the deft rhythm of their feet. To be sure, they have a certain pictorial value when mounted by a sail to aid the pushers; but that is all the good that can be said about them, from the sportsman's point of view.

After the quality of the ice, the wind is the most important detail to consider. In winter it blows mainly from east and north. The task of working north is then somewhat stern, even unencumbered by a knapsack. A trivial breeze over this treeless flat land gets magnified in an hour or two into a full gale, which freezes the eyelashes and gives the pocket handkerchief ample play. The initial pace of seven or eight miles an hour slows down or becomes hard labor, fit only for a convict or those reprobates confined in bleak penitentiaries in Drenthe and Oberijssel, who may be met trucking peats, with icicles to their noses and richly purple cheeks. The better plan is to take train to the Helder and run down the North Holland Canal; then go right away by train to Leeuwarden, the capital of Friesland, and map out a programme which may include the quaint old town of Dokkom, the go-ahead university city of Groningen, and so south nearly a hundred miles to Deventer, on excellent broad water-ways throughout. Ten miles an hour may then be kept up for a whole day's pleasuring, with instructive intervals for rest, refreshment and gossiping. Holland's railway system is not very extensive in the eastern provinces, but with due arrangement you may meet your luggage here and there every other day or so. That will ease the shoulder. The Dutchman on tour often carries a six-foot pole with him. This is convenient if his gallantry urges him to help two or three ladies exhausted by struggling against the wind. But such active self-devotion ought not to be lightly entered upon: towing another bicycle up a long hill is scarcely more arduous than thus playing leader in the teeth of a breeze to a trio of tired Dutch girls of the average dimensions. There is another use for these poles. In case you get into a canal from which you cannot scramble out in the simple way, and there is no one near, the pole may be invaluable either as a support or a gymnastic aid towards the banks.

The sweepers do what they can to make things smooth for the skater, and every town, large or small, prepares an ice "baan" or open-air rink for races. Here the band plays, flags and pennons flutter brightly, there are booths for coffee, gingerbread, sandwiches, and the inevitable schnapps; and excitement reigns as at no other season of the year in Holland. Even the staidest of the Amsterdam newspapers give columns of their space to reports about these ice contests, and the condition of the canals. It is as if the national breath depended upon a thorough enjoyment of a frosty winter. One could fancy that even the ice boats, which work hard to keep the Y open for traffic, do so with a certain reluctance; and that they are well content to lie up and let the jumble of floes freeze together. Ere that happens the thousands of boats in the Amsterdam canals have resigned themselves to circumstances. The stately old houses of the Heerengracht look down on growing heaps of domestic rubbish, thrown from the cabins of the amphibians, and subtly fastened by Jack Frost to the environing ice. This it is which makes skating on Holland's town canals rather nauseous as well as rough work. You trip over a cod's head frozen hard as a brick, and pitch into a litter of egg-shells and cinders. Still, the youngsters seem to be satisfied with these circumscribed and coarse fields of exercise, and you have only yourself to blame if you do not get off into the country, where under the mild sunshine the canal ice has the pure and radiant coloring of a glacier.

Holland does not abound in sights which compel the tourist on skates to leave the canals every alternate hour of his day. In its way this is comforting. But there are certain prehistoric remains in Drenthe which ought not to be missed. The Hunnebedden of Tinarloo, by Vries Zuidlaren, twelve miles south of Groningen, is a particular delicacy for the skater. It was on a perfect winter's day that I ran thither from Groningen, with frosted trees white against the blue sky, and on ice of supreme smoothness. In this thinly peopled part of Holland even sweepers were not numerous. The canal set straight south for miles, with few sluice gates as obstacles. When in half an hour the Groningen spires were out of sight, I was in the heart of the moorland,

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with two or three inches of snow on it, and only poor little patches of woodland visible in the distance. The air was as exhilarating as soda water, a trifle too keen, indeed, seeing that it garnished me with ice clots somewhat inconveniently. But it was matchless skating weather; a clear, blue sky toned to misty orange on the horizon.

The barrens were at length succeeded by spruce plantations, green blots between the white and blue. This was Vries. I unstrapped, and under the guidance of the burgomaster tramped over the snow to the famous stones, about which nothing is known except that they are the best-preserved specimens of this kind of sepulchre in the north. Eleven huge blocks of unhewn red granite enclose a space some seven feet long and three high and broad. Three go to either side, one at either end seals the chamber, and three form a rude roof. The original tenant had, of course, long disappeared. The burgomaster could not even guess where the granite came from in this graniteless land. But he was proud of the local treasure thus standing, a pale red wonder, in the midst of the white fields. Down in Assen, ten miles away, there is a museum in which the usual relics of the stone and bronze ages may be seen. But the museum contains nothing especially elucidatory of these so-called "tombs of the Huns."

Some excellent short runs may be enjoyed from Amsterdam, with the advantage or otherwise of having rail or tram always within easy reach in case of accident. The east and west canal to Haarlem is one of the most favored of all; but it is vastly too much crowded unless you go to it to study human nature, for which it is a magnificent subject. The hundreds of sweepers on the ten-mile course keep it in capital condition. A prime merit in this water-way, embanked above the level of the country, is the fewness of its bridges. Elsewhere these necessary evils for the skater are apt to be rather trying. They have to be shot with some caution. I was at Purmerend in 1901, when a man died from a collision with one of them: he did not duck soon or low enough. The ice, moreover, under them is often of different quality to the rest, and of course in the beginning of the winter it thickens more tardily. The Haarlem-Amsterdam canal, on the other hand, is, as it were, lifted high in this prairie of a country for the frost to get at it and freeze it quickly for the good of the Amsterdamers. Varied indeed are the styles of movement to be seen among the thousands of pleasure-seekers here. Generally, the Dutch girls are more graceful skaters than their brothers and grandfathers. The Frieslander, though he thinks no man can compare with him, is really rather an ungainly person, even at a sports' competition. He swings his arms windmill fashion, and cannot see that the method of men like Donoghue and the Smarts offers less surface for atmospheric resistance. Still, he is a generous fellow when fairly beaten at a match; words fail him for adequate praise of a candidate to whom he comes in a bad second. You may identify the Frieslander by his stalwart frame and marked vigor. More picturesque are the Marken Islanders, who go in strongly for mainland excursions when their insular disabilities are removed by frost. The flying flaxon curls and pippin-red cheeks of the tub-shaped women are better even than the local windmills, though these, too, are natty enough in their bright paint and warm new thatch.

It will be sheer loss to the romance of Dutch life, especially winter life, when Holland has drained the Zuyder Zee, and turned it into pastures and tulip beds. Marken will then be merely a gentle plateau surrounded by lowlands. Not then as now will one see the laughing Marken folk speeding by twos and threes across the pale blue ice beyond the western haze of which, three miles from their palisaded coast, lies the red shore town of Monnickendam, with booths in the harbor waiting for them and for the Amsterdamers out for a holiday and a trip on foot across the great shallow sea. I daresay they will have warmer beds for the wayfarer then than now in January. But that will be poor gain. Nor on any reasonable pretext whatever will the Marken folk be able to continue wearing those ancient costumes of theirs, which are worth a good solid revenue to them from summer tourists and artists.

My memories of days on Dutch ice are among the fairest and most cheerful I possess. Dutch inns, save in the large towns, are not luxurious. You turn out of bed in them in winter to break the ice

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in the water jug, and like enough break the jug itself in the endeavor. Downstairs, the iron stove in the middle of the coffee room casts a pretentious glow, but indefatigable housemaids are on their hands and knees in thrall to the routine of their morning scrub. You snatch a hasty meal while they scrub on, with musical hiss like the old-fashioned ostler. It is a joy to get clear of the house, with or without the good wishes of the landlord, who has been fascinated by your skates ever since you came to him the previous evening, just in time for the rather curious dinner at which he did the honors as president and chief carver. Outside, dogs are drawing burnished milk cans from door to door, and the local youngsters are blowing in their fists as you may see them doing in Jan Steen's pictures. A white rime is on the blue slate roofs, but the winter sun is already striving to melt it. More than this the Dutch sun in winter does not attempt to do when there are twenty degrees of frost in the air. Down by the canal side, early though it is, a dozen travelers are tying on their skates with numbed fingers and very red ears. On the decks of the trim boats, laid up for weeks or a month or two, the bargees in thick jerseys smoke their morning pipe, and pass slow salutations and criticisms. The boats' children (as necessary as flower pots for the canal-boat life) are tumbling about on the ice in heavy clothing. They are chubby little cherubs, but for practical management of themselves not to be compared with the average Dutch boy of ten or twelve, who will skate stolidly for hours with his large ears stuck out from the sealskin cap he has jammed on as low as he can get it, and with a pipe set with a business-like air in the corner of his mouth. A radiant contrast with him is the rosy-cheeked daughter of the village baron. She comes laughing to the canal side, and need not trouble about fastening her skates. She looks lovely in a short sable jacket, with cap to match, and the cavalier who has already done his duty to her insteps is now eager to give her his two hands, that they may shoot together across that faint golden beam which the sun has shed upon the canal. As they start, sturdy boys and pigtailed girls, with school books in their hands, speed to the landing stage from the deep-browed farmsteads with scarlet roofs, which dot the flat landscape, and are little less conspicuous in the clear air than the windmills themselves, some whirling and whispering, others idle. The schoolmaster himself, spectacled and mild, skates up after the first batch of his scholars. And down rushes a newspaper boy with the delightful task of skating two or three miles along yonder glistening glade to deliver the "Telegraph" or "Commercial Intelligencer" to the more remote of his master's customers.

The Dutchman doesn't care about figure-skating. His sport on skates is one of simple exercise. The multitude of his country's canals offer him the change and charm of a railway journey free of expense, with benefit to health thrown in. That is why his spirits are twice as gay in winter as in summer. The visitor to Holland, also on skates, can hardly fail to share his enthusiasm.

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THE GROWTH OF GAME PRESERVING

SECOND PAPER

By W. A. BAILLIE-GROHMAN

TURNING to Continental game legislation, we propose first of all to investigate those in force in the Teutonic countries, viz., Germany and Austria-Hungary. There feudal institutions were kept in force far longer than in Britain, in which country the subject had worked out his own salvation quite two hundred years earlier, though, as we have seen, the legislation relating to our subject is to modern eyes an exceedingly antiquated code. On the Continent the principal species of game belonged, up to the last century, to the king or sovereign duke, and to certain nobles of large territorial possessions; and, what was more important, the serf classes, from which poachers were recruited, practically were also their own, as the name *Leibeigene* indicates. Mutilation, such as the loss of a hand, of the right eye, of both ears, or branding with a hot iron on the forehead for first offences, death for old offenders, were the punishments meted out by lords to whom the chase afforded the principal amusement in time of peace. In all the ancient records bearing upon this subject, I have not come across a single instance of retribution overtaking an unjust lord for misusing his subjects, such as we hear of in English history. The fate, for instance, that overtook the eighth Baron Stourton in 1557, who, for beating to death or cutting the throats of some yeomen that had dared to question certain of the lord's claims to the forest of Selwood, was hanged in a silken halter, had no parallel on the Continent.

Passing on to the modern game laws, those of the Austria-Hungarian empire are worth a more detailed notice. With some insignificant differences they are much the same as the German, so we shall deal with the two countries as one. Ownership of at least 200 Joch or about 287 acres is the essential condition to give a person the right to shoot over his own land. Persons who own less, such as peasants and villagers, must throw their lot in with others similarly situated, and the Commune then lets the rights over all the small estates bunched together. This the authorities can only do by public auction, after advertising the extent of ground and date of auction for a certain period in the local newspapers, and they cannot lease the rights for a period of less than five, and in some provinces of not less than seven years. Permits to shoot have to be acquired by the individual at a cost of a dollar or so from the local authorities, and besides this every person carrying a gun, rifle or even a pistol (members of rifle clubs excepted) must be provided with a *Waffenpass*, or permit to carry arms. The cost of this document is small (one florin or forty cents, and it) lasts three years, but the person applying for it must be of good character, and strict inquiries are made should any doubt exist. Even keepers and foresters have to be supplied with these permits or they may not carry a rifle, which in most preserves is a necessary precaution, for without arms poachers could never be secured.

The following instance that came under my personal notice some years ago will show what rigorous use the authorities often make of the *Waffenpass* regulations. Having occasion to engage a keeper for a chamois shoot in Styria, where a good man was required on account of it being exposed to raids by daring poachers of the "no surrender" type, I wanted to appoint a certain individual whom I knew to be a capital mountaineer and a thoroughly reliable fellow. Many years before he had been mixed up in a poaching affray, with the result that a black mark had been placed against his name in his "good conduct sheet," which the paternal Austrian Government keeps on file concerning every male (adult) subject.

Though the place where my man had been in trouble years before was in a quite different part of the country, the black mark against him could not be hidden, and the authorities refused to swear him in or

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grant him his *Waffenpass*, and this in spite of my best efforts and an appeal to the Minister of Forestry in Vienna.

Another most beneficial custom is not to let preserves on short leases, though, of course, in the case of large properties, the law does not prevent it being done. Extensive experience in other countries has shown that yearly leases, such as are so general in Scotland, where I believe the majority of deer forests are taken for a season only, are most harmful.

The close time varies slightly in the different Austrian provinces, for climatic and local reasons it is unnecessary to specify. Each *permit de chasse* has the close time specified on the back. Broadly speaking the following are the close seasons: Stags, October 15 to June 15 or 30; hinds, February 1 to September 30; chamois, December 15 to July 31 (in Tyrol from December 1 to July 15); roebucks, February 1 to May 31 (does may at no time be killed); hares, February 1 to August 31; pheasants, March 1 to August 31, capercaillie cocks and black cocks, December 1 to April 6, while hens of either species may never be shot or trapped. Other wild fowl such as hazel and snow grouse, ptarmigan, partridges, quail, etc., February 1 to July 31; wild duck from March 1 to June 30.

In Austria, and particularly in Hungary, the size of sporting estates is often very great, and as a rule they are shot over by the owner, the leasing of shootings being much less prevalent than in countries where the nobility is less exclusive, and where newly-made wealth is permitted to play a more important rôle than it is in Austria-Hungary. For chamois shootings in Styria, Tyrol, and Salzburg there is a growing demand on the part of North German and also English sportmen; but the Emperor does not encourage the advent of strangers, and it has lately become the law that non-residents may not, without special sanction, acquire shooting rights from the government or from Communes.

In Germany the laws are rather similar to the Austrian regulations, the price of the permits being somewhat higher, and some other minor differences, which it is unnecessary to specify. Both in Germany and Austria the *Jagdschutz Vereine* (associations for the protection of game) do very useful work in the way of inaugurating legislative improvements and by giving rewards to keepers for the capture of poachers, pensions to the widows of the former killed on duty, and by issuing journals that circulate among those interested in sport.

Broadly speaking, we find, therefore, that both in Germany and Austria-Hungary the modern game laws work quite satisfactorily. As a matter of fact, there are in some places more chamois to-day in the Austrian Alps than there were four hundred years ago, as I have shown by comparing accurately-kept old game books of Emperor Maximilian with the actual number of game I have myself seen in the very localities described in the old records. That the broadening of the franchise in Austria will gradually democratize the game laws of that country, as it is already doing in Germany, is a sad consequence of the whole drift of modern life in countries where the lower masses have been kept too long in leading strings and the reasoning out of problems of national utility is influenced by the professional agitator.

In France, as in all other Latin countries of Europe, the conditions are even worse, for there the few laws that do exist on paper are so persistently disregarded as to be a farce. In France, which before the great revolution was the home of all that was conservative and brilliant in relation to sport, everything connected with it has become hopelessly democratized. With the exception of a dozen or so of large shooting estates, such as Bois Boudran, Bonnelles, the Menier property on the rich plains of Noisiel, the Rambouillet forest, Fontainebleau, Sivry, Ferrière and Gretz, Chantilly, Vervaines, and a few others, the shooting in France is in the hands of the slaughterer, who spares nothing that flies in the air or crawls on the earth. Armed with his license that costs 27 francs, and is issued to every applicant, irrespective of character, the French gunner can roam at will. In many departments, particularly in the South, he can go whither he listeth, penetrating into the private grounds round châteaux and into plantations surrounded by walls, and the thrush can actually be potted on the lawn in front of one's drawing-room window by the next best 'Arry, as I happen to know from an actual occurrence I once witnessed. I

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Four-year-old New Zealand Red Deer Stag.

other departments the large landowners, by dint of affixing notices at every corner, can debar the prowling gunner from entering private ground. The almost entire absence of all legal means of enforcing a close season, where indeed such exist at all, makes the suppression of this wholesale slaughter practically impossible.

In Italy, Spain, and Portugal much the same conditions prevail, and no better object-lesson regarding the importance of game laws can be gleaned than by a visit to these countries, where the natives can kill game wherever they please, the State being interested only in collecting the paltry dollars for license, which after all amount to petty sums that hardly pay for the collecting of the tax. This is so much the case that, for instance, in Portugal the Government, I am told, has given up bothering about it, and the shooting of the little game that is left is practically free to everybody who can pull a trigger.

In Norway and Sweden, on the other hand, the game laws are constituted on the principle that the native is to have his

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shooting with as little expense as possible, while the stranger is to be mulcted in sums as large as his purse will stand. That well-to-do Englishmen, to whom the fishing and shooting in Scandinavia has in past times afforded some of the finest wild sport obtainable in the old world, should pay handsomely for it is natural and proper, but recent legislation, it would seem, oversteps all reasonable bounds. It shows, however, what an important revenue can be derived from this national asset when it is carefully husbanded. In the land of the frugal but not very far-sighted Switzers, chamois, ibex and red deer were once very plentiful, but with the fall of the country's aristocratic institutions they also vanished, for republican freedom extended of course also to the universal exercise of shooting rights, and the species easiest killed disappeared soonest. Already in the seventeenth century ibex and red deer had become so scarce as to merit special notice when a specimen was shot. Chamois kept their own a little longer, but had not more enlightened views gained the upper hand some thirty years ago when the first regulations for the establishing of game sanctuaries were passed, it is certain that chamois would have shared the fate of the ibex and stag. As it is, one can see by the success of these game preserves what satisfactory results can be achieved, though in Switzerland these good results are rendered only of partial use by the fact that when after a ten years' maintenance of the sanctuary laws a district is again thrown open to invasion by native sportsmen it takes but a couple of seasons to clear the game off. In addition there is, I am told, constant confusion if not conflict between federal and cantonal game legislation, and strangers, to whom Switzerland really is indebted for many millions of its revenue, are treated in some of its cantons in a somewhat illiberal spirit. Were the Swiss to exploit their chamois in the same thoroughgoing commercial fashion they exhibit in regard to their scenery, waterfalls, and lakes, several additional millions of francs would flow into the pockets of the nation.

Before quitting the subject of European game legislation we are prompted to throw a glance at a district which has only recently come under the influence of civilized rule, viz.: Bosnia and Herzegovina, the Austrian Protectorate on the Turkish frontier, for the administration of which the dual empire charged itself a couple of decades ago. The present game laws date from 1893, and considering the wildness of the country, the primitive condition of its institutions and the semi-barbaric type of its population, the usefulness of game laws is strikingly illustrated by the results they have achieved. Briefly put, the regulations introduced by the Austrian authorities consist of creating game preserves, in the introduction of shooting licenses, limiting size and number of hunting dogs, and rewarding the destruction of vermin, of which several varieties existed in great numbers. Thus in the twenty years of Austrian occupation over 13,000 wolves and 1,700 bears have been killed in the two Protectorates, the head money for every bear being four dollars and for every wolf two dollars. The game preserves consist principally in extensive tracts of virgin forest and uplands, the latter the home of the chamois. The areas of these preserves are, according to European ideas, of vast size, for they embrace about 700,000 acres. They are guarded by a native police force and notices are posted where the absence of natural boundaries might lead to mistakes. Close seasons are strictly enforced; for chamois from November 1 (the rut begins there at that season) to August 17; for roebucks from January 1 to August 17, the female of both species being protected all the year round. Shooting licenses have to be taken both by natives and strangers, the price being two dollars for a man without a dog, double that sum including one dog, and six dollars for a man and two dogs, which is the most that may be used for sporting purposes. The shoulder height of the animals must not exceed 50 centimeters (20 inches).

European game laws have evidently been seriously studied by the coming people of the Far East and also by an even more distant community in the two beautiful islands of New Zealand. In Japan, according to the laws passed in 1892, the chase is divided into two classes, the first dealing with the pursuit of animals and birds for purposes of gain, the second for pleasure. Each of them is subdivided into the chase without firearms and the chase with firearms. N[illegible] who is a government offici[illegible] income tax

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or who pays more than forty-five shillings ($11.25) ground tax, or the members of a family the head of which pays more than this sum in income tax, can obtain a license (costing three shillings) to follow the chase for purposes of gain. Persons of the other category, *i.e.*, sportsmen who desire to get licenses, must pay fifteen shillings ($3.75) for a license to pursue game without firearms and double that sum with the latter. Natives of the Japanese Empire can secure game preserves (their extent to be under usual circumstances 1,500 *Cho*, or roughly 3,700 acres) for which, if it is unoccupied government land, a rental of $7.50 per annum is to be paid. Under certain given circumstances their size can be increased. In these preserves no person who has not the permission of the license may trespass, but individual licenses must in all cases be held by every sportsman, sufficiently heavy fines being inflicted for breaches. There is a central head to the whole game preservation organization in the person of the Minister of Agriculture and Commerce, to whom wide powers to change regulations in special cases are entrusted. Close times for all the *feræ naturæ* of Japan are also provided, and in fact the whole legislation is as modern and up-to-date as are so many of the institutions of this intelligent and active people.

There are few attempts at acclimatization and game preserving which claim the attention of the naturalist sportsman to a higher degree than the eminently successful experiment carried out in New Zealand. Though conducted on a small scale, for the finances of a small colony such as New Zealand was forty years ago could not stand a heavy drain, a brief account of its results will show how eminently useful, from the point of the national economist, they have been.

Some forty years ago the Prince Consort assisted the then Agent of the New Zealand Government in London to send two stags and four hinds from Windsor Park to his distant colony. Only one male and two hinds survived the six months' journey, and these red deer were turned out on the northern of the two islands in the Wairarapa country. After wandering over the surrounding country they chose the Maungararaki range of mountains as their future home. A limestone formation and a suitable vegetation combined to induce well-being and a lusty growth of antlers. Curiously enough the new comers adapted themselves very quickly to a new condition of things. The mating season, instead of occurring in September and October, now takes place in the autumn of the southern hemisphere, viz., in March and April, the period of gestation remaining, of course, the same.

Intelligent interest in the deer was soon manifested by a number of prominent settlers when they saw how the animals throve, and about fourteen years ago a number of men joined together and formed the Wellington Acclimatization Society, through which suitable legislative measures to protect the deer were inaugurated. Their annual reports, some of which are now before the writer, furnish much useful information, not only concerning the deer, but also respecting trout, whose introduction into New Zealand rivers was crowned with similar success.

One of the first protective measures was that nobody should shoot stags who had not procured a license, of which the first six were issued in the year 1887. The next was that a strictly enforced close-time should protect the immigrants and their descendants. At first the shooting season opened on March 1st and closed on May 10. This experience soon showed was not only too long, but included the whole of the rutting season. It was therefore decided to limit the open season to the three weeks from April 7, to the last day of the month. This gives the large stags, which are the first to act upon their propagating instinct, the chance to mate ere their proud trophies ring their death knell. As the New Zealand mountains are in many respects very like the alpine chains of Europe, and have their slopes clothed with dense woods, deer can not well be pursued until the warlike instinct of the rutting season causes them to betray their presence to the sportsman by their hoarse challenge.

Before bringing this examination of game legislation to a close we must cast a glance at what is being done in Africa. There the destruction of game has been going on at a great rate. Advancing civilization, accurately shooting long-range rifles killing at distances hitherto deemed impossible, the decrease of inter-

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tribal hostility among the natives, resulting in greater freedom to roam about the country in quest of hides and ivory, commodities of rapidly increasing value, and finally the rinder-pest, which has decimated not only tame cattle, but has worked havoc among the buffalo and bovine antelopes—these are some of the principal causes why it is high time that measures of protection should be speedily inaugurated. Of the magnitude of the task it is not easy to form exaggerated ideas. To institute gamekeepers in an estate which, to use the words of Article I of the recently concluded convention, "is bounded on the north by 20th Par. N. L., on the west by the Atlantic Ocean, and on the east by the Red Sea and the Indian Ocean," is a task in some respects even more formidable than faced the people of the United States twenty years ago when the vanishing bison of the plain cried—alas! ineffectually—for protection.

Attempts to stay the extermination of African *vernæ naturæ* were commenced some six years ago when a number of cosmopolitan sportsmen and naturalists formed themselves into an African Game Preservation Society. We contrived—the writer was on the committee—to arrive at what seemed to us a workable scheme, and by interesting in it Cecil Rhodes managed to secure the promise of a large tract of some 100,000 *Morgen*, or rather more than 200,000 acres, of wild land in Mashonaland, which it was our intention to fence in and turn into a vast game preserve. It unfortunately shared, in consequence of the Jameson Raid, the fate of numerous other schemes in which the then dictator of Africa was concerned, and our little committee's labors came to naught. Two years ago the various European governments interested in Africa at last took it upon themselves to further game protection by a convention in which the matter was to be discussed in a practical manner.

The convention met in London in May of last year (1900), and agreed to enforce certain protective measures. Though the mere passing of these regulations in the London committee room was less difficult than to devise means of enforcing them on the spot by their respective local officials, there is no doubt that good will result from the movement. As can be seen from the following necessary brief summary of the British regulations, local officials, if they are determined to show no favor to the professional ivory hunter or to the rich globe-trotting sportsman eager to secure record trophies, will be able to put a stop to the deadly excesses perpetrated on many occasions of late years by mausers and mannlichers.

The requirements of those of the British possessions in Africa still containing wild animals vary considerably; there are different regulations for Uganda, for the East African Protectorate, for British Central Africa, and for the Soudan. As the first two resemble each other closely, it will suffice to speak of them collectively. There are four classes of licenses issued to whites. First, the sportsman's license, which is the most costly, for obviously only wealthy men can afford to visit Africa for sport. These visitors have to pay 750 rupees (about $250) for the privilege of killing two male elephants, two rhinos, ten hippos, two zebras, and a given number, varying between two and ten, of the various antelopes and other smaller game. An accurate record of the game shot has to be kept, and on his return each sportsman has to furnish a written and signed statement to the Collector or Commissioner of the district. To the Commissioner comprehensive power is given; he can refuse to issue and he can stop a license, he can demand security in the shape of a deposit of 2,000 rupees, and if he suspects that any breach of these regulations has been committed he is empowered to investigate the truth of the sportsman's returns. He can inspect and search any baggage or caravan and seize live or dead animals and inflict fines amounting to 500 rupees for each animal killed or captured in excess of the licensed number, and order imprisonment up to two months. The second class license, known as the public officers' license, curbs the resident officials' propensities for slaughter. This license costs only $50, which is the same that the third class or settlers' license costs. Sportsmen and resident officials may kill the same quantity of game, while settlers in Uganda may kill per annum ten hippos, ten of each of the three wild pig species, and five of each of the ten principal antelopes and [illegible] The fourth type of license [illegible] special license, which the

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scientific or administrative reasons may grant on particular occasions, a right of which we may presume the head official will make only sparing use, for it covers even the killing of animals in game preserves where usually all slaying is strictly prohibited. As to these sanctuaries we find that the recently published Uganda regulations create three large preserves, viz., the Sugota game preserve on the borders of Lake Rudolf, that paradise for the big game hunter; the Toro preserve, on the south borders of Lake Aybert Nyanza; the Budonga Forest preserve on the east side of the same lake, and nine smaller preserves each measuring nine miles in diameter.

As a third protective measure we may cite the regulations forbidding the killing or capture of certain species of the rarer animals. Thus in Uganda no person (not holding a special license) may kill giraffes, Grevey's zebra, the wild ass, the gnu, the eland, or female or young elephants, ostriches and a number of other beasts and birds, the complete extinction of which was to be feared.

In the Soudan and in British Central Africa there are also game licenses, but as they differ only in details from the Uganda and the East Africa regulations it is unnecessary to take up space by review, or to specify the little known regions where game preserves have been made. As very similar protective regulations have been passed by the French, German, Portuguese, Spanish, Italian and Belgian governments, one may entertain the hope that Africa will not be denuded of its wild animals quite so speedily as were the great trans-Missourian plains and mountains of North America.

FRENCH AND ITALIAN SCHOOLS OF FENCE

THE VOGUE AMONG AMATEURS IN PARIS

By COL. ARTHUR LYNCH

FENCING was probably never more popular in Paris than it is now. But there is fencing and fencing, and the animated and very interesting discussions as to the merits of the different schools and methods occupying considerable space in the journals of the day devoted to sport, show on the one hand the vitality of the art, and on the other the prospect of a recasting of the whole theory and practice of the sword, both as an instrument of sport and as a weapon of offence. The art of fencing has been gradually modified and improved throughout the centuries. Schools such as the olden Spanish School, too much embarrassed by ceremonies and conventions which had no real basis in the practical use of the sword, have disappeared, and now we hear the cry "too much convention" raised once more against the beautiful system of foil play elaborated by French masters during the last hundred years.

[illegible] only two recognized schools of [illegible]rench and the Italian, and as they are both practised in Paris and both have their zealous partisans, I propose in the first place to indicate the principal points wherein they differ, and afterward to give some account of the most famous salles d'armes in the French capital, and a general review of the state of fencing there at the present moment.

It will be necessary for the clear understanding of the matter to state a few elementary principles, and afterward to enter into details of a more advanced technical character.

The French foil, of which numerous illustrations are shown in the accompanying cuts, has a blade about 33 to 34 inches long, of rectangular, nearly square section, diminishing in thickness to the point. More than one half of the blade is flexible, and is called the *faible*, or, as it is sometimes written in English, "foible," which is the old French form of the word, and which simply means feeble as against lateral pressure. The part of the blade next to the hilt is called the *fort*, that is to

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say, the strong part. It is necessary to call attention to these familiar facts because the difference of play of the French and the Italians depends to some extent on the difference of their foils. The French hilt affords no great protection to the hand. The *poignée*, or grip, is much longer than the Italian grip, and is slightly convex upwards so as to fit well in the hand. At the end of the grip is the *pommeau*, or pommel, which is of steel, and of such weight as to give a good balance to the whole foil. The French hold the foil by placing the thumb stretched on the top surface of the grip, with the index finger beneath, not meeting the thumb. The other three fingers reaching a little higher on the grip, help to hold the weapon, but they have much greater freedom of play, being loosened or tightened, according as the foil is used in certain movements of disengagement or in parries. This use of the fingers forms one element of what the French call *doigté*, and on which they lay great stress. In the French guard the legs are bent, so as to afford a certain solidity to the position from which the principal strokes are given, but they are not too much bent to prevent rapid movements either by marching or by little springs backwards or forwards, while the position is also the best from which to make the lunge, when a thrust is to be driven home. The body in the position of guard is upright, and without constraint. The left arm is held as shown so as to give a balance to the body. In lunging it is swept rapidly down, and this movement aids the force of the lunge and also helps to keep equilibrium in the outstretched attitude. The right arm is held bent, with the elbow kept well in a line with the side. Note that in the positions both of the guard and the lunge the head does not come forward from the neck, but is held in the best position for its own defence and for the use of the eyes. Note also the great stretch in the French lunge. An expert fencer should, however, be able to recover the position of guard from that of the lunge with extreme rapidity. The positions of the body which look constrained are found after a little practice to be quite comfortable, and in all the criticisms the positions of the legs and of the left arm on guard are those which have 'rely escaped censure.

The French employ more parries than the Italians; as these parries are the counterpart of the strokes, it is well to pass in review the elements from which they are formed, and the names by which they are designated.

In foil practice only the hits on the body are counted, and only that part of the body which extends from the line of the collar-bone to that of the hips. For the purpose of definition this surface is divided in the middle by a horizontal line, and above that line the strokes are said to be in high lines, and below, in the low line.

Each parry has a counter parry. For instance, suppose we are engaged in quarte, and our opponent disengages into sixte—that is to say, by a smart movement of his blade under ours brings us into the engagement of sixte—we can recover the position of quarte by a movement in which the point of our foil makes a circle round our opponent's blade. This is called the parry of *contre de quarte*, or the counter of quarte. But each simple parry has its counter, so that as there are eight simple parries and consequently eight counters, there are sixteen parries in all; and with the strokes and the parries thus indicated, we have the foundation, or the elements at least, of the entire French "play." For as a strike must be delivered in one of the eight positions of the inside and outside of the high and low lines respectively, and as each stroke has its parry selected accordingly out of the sixteen available parries, the whole development of foil play must be due to combinations, or rather permutations, of these factors. The theory is quite a little triumph of that systematization and organization for which the French have so much regard.

It should be observed that the disengagement in the high lines takes place by passing one of the swords under the other, while starting with engagements in the low lines the disengaging sword is passed over the opponent's sword. The counters follow suit.

It is called a disengagement also, if the sword be passed from an engagement in the high line to a position in the low line, as for instance from an engagement in quarte to the position of septime; and *vice versâ*. Another way of making a disengagement is to pass the sword over the point of the other sword, as from the en-

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gagement in quarte to that of sixte. This is called a *coupé*, and is a favorite disengagement of the Italians.

Everything in fencing depends, of course, on the quickness with which the strokes respectively are made. For instance, if the adversary from an engagement in sixte disengages into quarte and proceeds to send home his point with all possible speed, it is evident that the parry of quarte, being in this case a simple parry, has ample time to drive the blade out of the line of the body. But it is not so obvious that we have time to make the *contre de sixte* and drive the sword out beyond the high outside line. The theory of the French schools, however, is that the defending party has always an advantage in point of time over the attacking party, and so the *contre de sixte* and the *contre de quarte* form a great feature of the defence in the French style. The best fencers acquire marvelous speed in these *contres*, and in the hands of a Mérignac, a Kirchoffer, or a Rouleau, they form a defence which is impregnable unless their play has previously been a little disorganized by the attacks and ruses of the adversary.

And here I must speak of *doigté*. The French not only use the fingers in the actions of turning or guiding the foil with speed and precision, but in the contact of the blades there is constantly communicated to the hand, through the *pressions* (beats), *froissements* (running one blade along the other with pressure), something of the intentions of the adversary. An accomplished fencer has the feeling that the space about a blade is a field of forces of which he measures the depths and intensity by the delicate tact of his fingers; and this feeling which by experience becomes a sort of instinct is called the *sentiment du fer*—the sentiment of the "iron," or blade. To the instinct of appreciation follows at once the instinct of the movement corresponding, and though these movements are originally based on the logic of the parry, the judgment of the attack, and the sense of respective personal advantages, yet they must by constant exercise be made so familiar that they are executed automatically and like a flash. The French attach great importance to *doigté*—that is to say the play of the fingers on the grip—the tensions and relaxations which not only aid them in guiding the sword, but give them the *sentiment du fer*—the feeling of the iron—by which they measure the field of force around the blade and gauge the adversary's intentions. *Doigté* then it is which gives to the play of the *fleuret* (foil) its sensitiveness, alertness, quickness, firmness, and precision.

The simple strokes, either direct strokes or disengagements, being met with appropriate parries and followed by ripostes on the part of the adversary, replied to by parries and counter ripostes, form a phrase. The phrases were formerly comparatively short, rarely extending beyond a counter riposte, but nowadays, partly owing to the influence of the Italians who fence with great vehemence and energy, the phrases often become continuous throughout a whole series of ripostes, counter ripostes, and *reprises* (immediate renewals after a completed attack). The stanza, so to speak, becomes lengthened into an ode.

This makes the fencing at once very picturesque and dramatic. The simple strokes, however, being the basis of all the sword play, must be cultivated with the utmost assiduity. It is one thing to know how to make a *contre de sixte*, but it is quite another to execute it with effect before a clever opponent. Even the great masters, for some time previous to a grand *assaut d'armes*, may be seen in their salles going through the exercises and practising the direct strokes and lunges with the utmost patience. I have seen Lucien Mérignac, son of the famous Louis Mérignac, and himself one of the best, if not the best, fencer in Paris, practising night after night for half an hour at a time a stroke which is exceedingly simple in theory, viz.: a disengagement from quarte to sixte, with a *tac*, or sharp, dry hit on the adversary's blade, followed by a lunge. The stroke must be made with the maximum of speed, but there is a danger that the movement may be slurred on that account. The disengagement must be sharply defined, yet on the other hand there must be no appreciable pause between it and the lunge. Lucien Mérignac, a young man of some twenty-five years, and accustomed to the foils from the earliest age, was able only after many lessons on this occasion to convince his father that he had perfected the stroke. Imagine then the effect of such a stroke, delivered

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in the heat of a combat, when the adversary's guard by dint of previous attacks or feints had become unsteadied in that line. It will be seen what great resources the French play finds even in the high lines and with simple strokes.

The exercises, or lessons, are pretty nearly the same in all the French salles. They come principally from a series of reprises elaborated about the middle of the last century by the celebrated Jean Louis, and afterward committed to paper by Vigeant, a noted professor, son of a disciple of the master. The lessons are like the scales in music, intended to give familiarity with and ease in the elements which when combined constitute the play. They are mostly occupied with simple strokes, disengagements, counters deceiving the opponent's counter; these movements being arranged in various combinations.

The following are three characteristic exercises in a lesson of some twenty of the like kind:

Engage the sword in sixte; *battez* (give sword a tap) and one-two-three inside. The one-two-three is a disengagement in quarte, and on the simulated parry of the master in quarte, disengage to sixte, and on his simulated parry in sixte, disengage to quarte. On guard. Engage the sword in quarte, *froissez* (a sort of rubbing movement) the sword; and strike home. On guard. Engage the sword in quarte, *froissez* the sword; yield, disengage above (this must be by a *coupé*); I parry sixte, parry sixte on my riposte; in coming to guard escape the *contre de quarte*, parry quarte in coming to guard; strike home. On guard.

These strokes do not necessarily follow any logic of attack; they are only intended as exercises. The attack, of course, should depend on the tactics of the adversary, though most fencers indulge in combined attacks of which they have previously worked out the sequence. Combined attacks are well worth practising as exercises also. Examples of such, deceiving the simple parries, are, One-two-three, and *coupé-dégagé* (disengagement); those deceiving the counters are the *doublés* (that is to say, after coming from quarte to sixte, if ry makes a counter disengage- ain quarte, we reply in turn er disengagement to sixte); a third category of combined attacks deceiving both the simple parries and the counters, comprises *doublé dégagé*, and one-two-deceive the counter; as for instance starting from the engagement in sixte, *dégagé* in quarte, and deceiving the parry in quarte, *dégagé* in sixte, and to deceive the *contre de quarte* execute a *contre de sixte*.

It should be noted that the word disengagement really should imply also the thrust, and that except the final stroke the disengagements here mentioned are really only feints not carrying the thrust. However, for brevity the word *dégagé* (disengagement) is used for the feint also. In the salle the *fleuret* (foil) is always called the *épée* (sword).

As the theory is that in the hands of masters of equal skill the defence can resist the attack, the orthodox thing is for the attack to run its course and, after the final parry, the adversary to deliver his riposte, or introduce a combined attack of his own, which is counter-riposted. Any weakness or lack of judgment may at any stage leave opening for a home stroke. The French fencer keeps his ground as much as possible, and gains reach by the length of his lunge. The movements of advancing or retreating are made according to rule, and as quietly as possible. The general aspect, therefore, of a bout between two great masters following the orthodox theory is that of swiftness, with regularity and logical sequence. They seem to work together like a piece of fine machinery. Hence the terms generally applied to express admiration for the French play—correct, pure, classic—have a very appreciable meaning.

The Italians are much more demonstrative. The general aspect of a bout between Italians is that of a furious struggle. They spring, they use certain sweeping movement, they utter cries, they march on their adversary, they "redouble"—that is to say, follow up an attack either on the retreat of the adversary, or after his riposte on their attack in the extended position. Those of the French masters who wish to decry their play say it is violent, brutal, inartistic, made of force, and more *bruyant* (rowdy) than brilliant. The French critics who admire their play praise their "temperament," their fire, their dash, their *brio* and the energy with which they pursue their phrases, their *remises* (quick renewal of a stroke in the extended position

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after the adversary has parried but neglected to riposte), and their *redoublements*.

But these are only the superficial aspects of differences which arise from a certain difference of theory, reposing again to some extent on a difference of foils. The Italian blade is a little longer than the French blade, and is more flexible at the *faible*. Its *fort* is, of course, quite rigid. The section is more oblong than that of the French foil. The guard is a *coquille*, or hollow hemisphere of steel, and this being larger than the French guard not only protects the arm better—which is of little consequence, since only body blows count—but also in certain parries carries the adversary's blade much more easily out of the line, as, for instance, the high outside line. There is a little pad of soft leather inside the *coquille*, and the thumb and index finger press against this. Also there is a little *sous-garde*, or protecting iron ring, inside which the second finger rests. A transverse thin iron bar extends out from the grip at the height of the *sous-garde*. The grip for the palm and the other fingers is much shorter than the French grip, and is quite straight and of nearly circular section. The pommel is also much smaller and lighter. The grip is held quite rigidly, and this rigidity is sometimes assured by a long string or band binding it in several windings to the wrist. The famous Italian swordsman Conte, does not use the traditional binding, and in many respects his play more resembles the French than does that of other famous masters, such as Greco, or Pini. The rigidity of the grip dispenses with all question of *doigté*, and thus one of the glories of the French school disappears at once from the Italian.

In the position of guard the Italians hold the arm almost straight, the hand higher than the French and more in supination. Here again Conte, however, conforms to the French model. The Italians are usually said to take more guard—that is to say, the distance between the feet in this position is generally greater than with the French. But Conte, and most of the Italians who have been to Paris, conform in this respect also to the French school. The body, however, is always much more "effaced"—that is to say, placed more in the sidewise position with reference to the adversary, than with the French. This position is certainly more constrained than that of their rivals, but it is part of the Italian system of avoiding strokes as much by dexterous movements of the body and legs as by parries. The Italians advance by bounds, rather than by marching, and in their lunge the left arm is much more nearly horizontal than the French. Moreover the stretch, or distance between the feet, is generally much shorter; and consequently they do not risk so much in the lunge, as they are in a better position either to regain guard quickly, or to give the *remise* or *redoublement*. Conte has here once more, however, followed the French model, but in general practice his lunge is shorter.

The Italians are fond of *appels*, or beats with the foot, of *invites*, or leaving the body exposed so as to invite an attack, of false attacks so as to induce a riposte for which they have prepared a counter riposte, and generally of a furious manner either of attacking or disconcerting the adversary. Conte and most of the Italians use only four parries—instead of eight, as in the French school—and their counters. These parries are in seconde, in tierce, in quarte, and the parry called demi-circle. It will be observed that they prefer the parry in tierce to that in sixte. The parry in tierce is certainly more vigorous, but the objection that the French make to it is that it uncovers the body too much in case of a riposte. Its use, however, corresponds to the vigorous Italian method, and the danger of riposte is avoided by them by the strong force with which they employ it, mastering the adversary's blade till the thrust is made. All their parries are made with more violence than the French, and they are fond of applying "opposition," that is to say, sustained pressure against the opposing blade, running their own blade along it, instead of the *tac*, or short, dry, beat of the French. They reproach the French simple parry with not being effective, with carrying the parrying sword too far out of the line of the body, with being capable of being forced by opposition, or being liable to be beaten by the counter. The French themselves feel a certain weakness in the use of the simple parade, if not well applied, and this perhaps accounts for their preference for the counters as being

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more certain to catch the other blade "somewhere" in the circle—but that word betrays the feeling of want of precision. The Italian simple parry—they use the simple parry more than the French—is carried out with the hand higher in the high line, with straight arm, and with "authority"; the wrist play, as distinguished from the finger play, being remarkably great, and the adversary's blade being conducted by force of opposition right outside the line involved. They have much more play in the low lines, and the parry of demi-circle is a very characteristic feature of their method. Sometimes the parry in septime is called the demi-circle, but as the Italians use it their demi-circle is really the *septime enveloppée*. From the position of quarte, or after the *contre de quarte*, the sword is kept down by a demi-circular movement to septime where it comes in contact with the adversary's sword in case he may have attempted a stroke in the low line; and continuing the circle up to the position of sixte it carries his blade forcibly with it, flinging it out of that line in order to lodge the stroke. Another feature of the Italian play is their fondness for *coups de temps* and *coups d'arrêts*. These are terms respecting the precise definition of which I find disagreement among the professors themselves, as indeed I do also with respect to the use of the terms *remise* and *redoublement*. The usual application is where the adversary have a planned combined attack which he is working out, and which it may be possible by good judgment, aided by a familiarity with his methods, to foresee a feint, for example, and disconcert his movement by a thrust with opposition. It is called a *coup de temps* (time) because the success of the manœuvre depends entirely on the time and the apropos with which the thrust is delivered. As the *coup de temps* is delivered with opposition it is nearly always used in sixte, sometimes in octave. For instance, our adversary has planned a *doublé*—one-two from quarte; we reply in succession by *contre de quarte*, a simple parry in sixte with the *coup de temps* in sixte. Our adversary, who has expected to disengage into quarte with the feint "one" of his one-two, is deceived, and so is unprepared to parry the thrust in sixte delivered with opposition. He might have interrupted his combination between the "one-two," but that would have implied our thrust in quarte.

A *coup d'arrêt* is made when the adversary uncovers himself, as, for instance, by an invite, or by marching on us with insufficient guard. Our sword, avoiding contact with his, may deliver a stroke which will arrest him by going home without his being able to parry it. The Italian demi-circle, or *septime enveloppée*, may be defeated by a *coup d'arrêt* by resisting the blade in septime and then disengaging into sixte. Thomeguex, the redoubtable duellist, wounded Casella, an Italian swordsman of repute, by a *coup d'arrêt* from an attempted *septime enveloppée*, the stroke touching Casella's face. Pini, the celebrated Italian master, was unable, for fear of the same stroke, to succeed with his efforts of *septime enveloppée* against Thomeguex in his memorable encounter with that "wary, cool, old sworder."

The Italians, with their strength and their agility, are fond of certain sensational strokes which the French never employ. One of these is the *inquartata*. On a lunge of the adversary in quarte the Italian, keeping the right foot in place as a pivot, swings the left foot swiftly behind it, and so avoids the lunge by the displacement of the body, aided perhaps by a disconcerting push, rather than parry, of the hand; and from the new position delivers his riposte. The French have no great opinion of the *inquartata*, which they stigmatize as acrobatism, while they say it can be easily beaten by a sort of *remise*, or renewed stroke on the lunge, and that in any case their direct riposte is preferable. Be that as it may, Conte succeeded in an *inquartata* in an assault at the Figaro against such a great master as Prévost. It would be a risky stroke to repeat against a first-class swordsman, but when successful it makes one of those theatrical and telling finishes of which the Italians are so proud. Another of Conte's favorite strokes is the *appuntata*, which, in the lunging position after the adversary's parry, is a *coup d'arrêt*, or *remise*, after a feint of disengagement, as for example from quarte to sixte. All the Italians are also fond of the *flanconades*, of which there are at least three. The two usual *flanconades* are made from the position of septime by bringing the sword smartly over, with a *liement* or bind, into the position of

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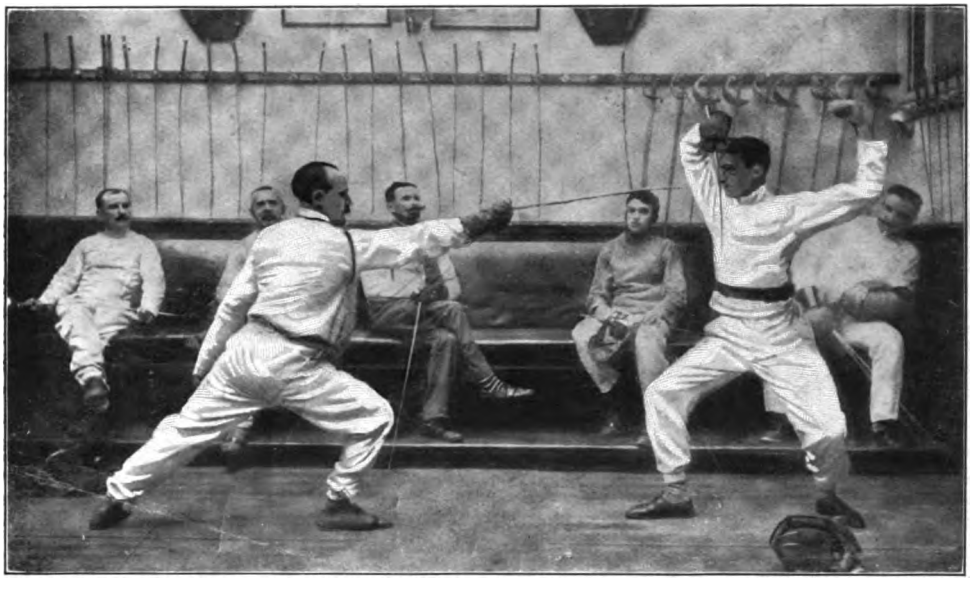
seconde or octave, and thrusting at the low outside line, or even the low inside line. The Italians do not use octave, and the *flanconade* corresponding is called in quarte; and as they point the sword upward in that case it is really like the position of quarte with the hand low down. A *liement* from in quarte to in seconde with a strong opposition is called by the French a *croisé*. This stroke if made after a *contre de quarte*, for example, with a *froissement* along the other blade from *fort* to *faible* and a very rapid energetic turn of the wrist to in seconde, with pressure and force, is capable of disarming the adversary, or if not of so disarranging his defence as to facilitate the *flanconade* stroke. It is a *botte*, or favorite stroke, of M. Thomeguex. The *croisé* may be parried in octave or in seconde, but perhaps the most effective way of dealing with it is to *dérober de fer*—that is to say to yield one's blade in order to slip it out of contact and then to deliver a stroke in the high line. In the sensational duel between the Marques de Morés and Captain Meyer, the latter, who was an expert with the foils, attempted a *croisé*. Morés, who had little experience in fencing, resisted with vigor—aided in this by his sword which was half as heavy again as that of his adversary—and, disengaging, struck home a direct blow in the side which Meyer had left uncovered with right arm in his constrained attitude in trying to force his sword. The Italians sometimes beat the *flanconade* in quarte by a stroke called the imbroccata, which is made by turning the hand in seconde, keeping contact of the adversary's blade, thence driving home a stroke on the flank, at the same time swinging the left foot behind the right, which remains in place as a pivot.

Another sort of *flanconade* is that greatly practised by what is called the mixed French and Italian school, but which, being adapted from the French school of a century ago, has little resemblance to the French play of to-day. The stroke is a menace in sixte and disengagement in seconde. This was a favorite stroke of Saint Georges, the most renowned swordsman of all time.



Salle Gabriel—Prof. Graviche and M. Thiebaut, the Amateur Sabre Champion of France.

A noted Italian stroke, which is as disconcerting to an amateur as fool's-mate in chess, is the *passata sotto*. The principle involved is that of the *inquartata*, viz.: an avoidance of the adversary's stroke by a rapid displacement of the body; but in the *passata sotto* the swordsman drops down suddenly to the position indicated and delivers his stroke upwards. In the recent remarkable duel between the Sicilian professor Athos di San Malato and the French professor Damotte, the representative of

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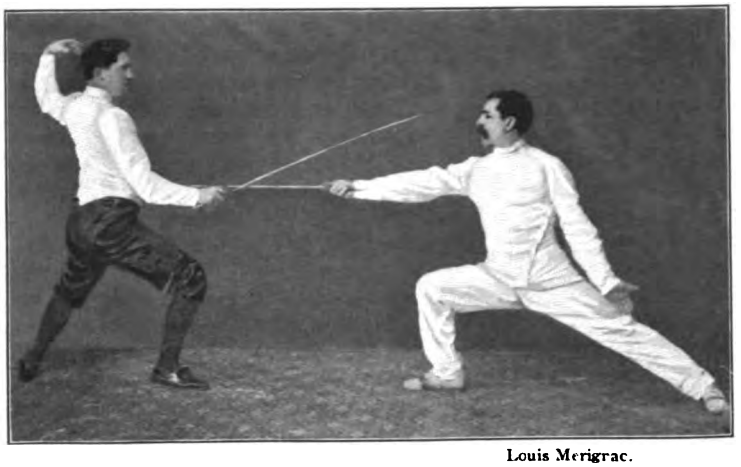
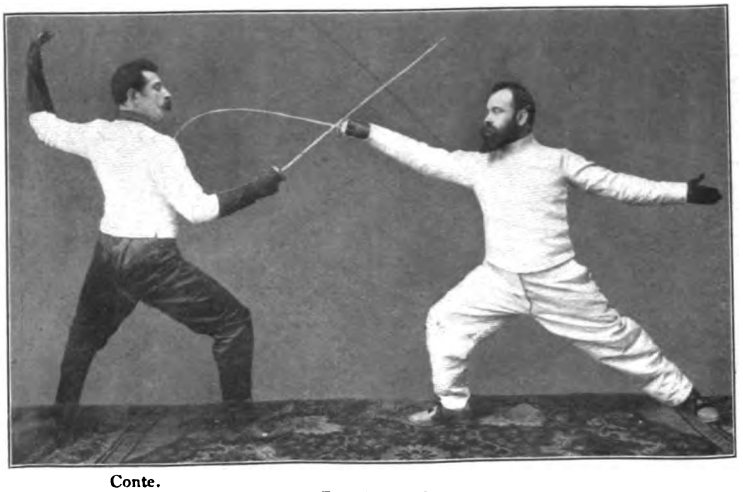


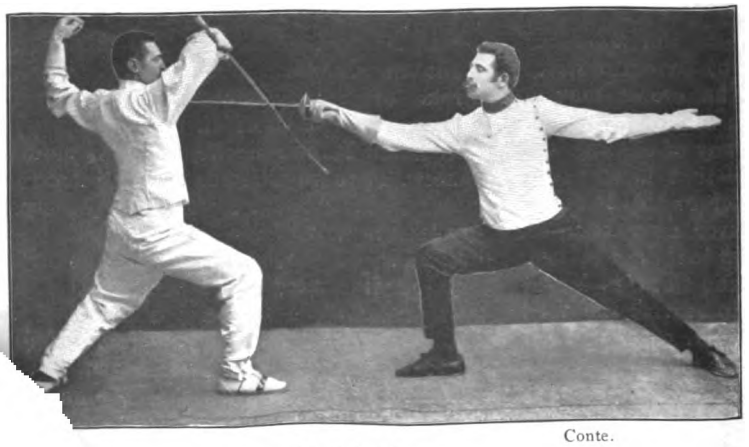
Louis Merigrac.

The French Lunge.



Conte.

Conte's Guard.



Conte.

The Italian Lunge.

the Italian school, after attacking all the time with characteristic impetuosity, put an end to the encounter by a brilliant *flanconade* in quarte.

I have already noticed that accomplished amateurs of the foils have been beaten in duels by swordsmen of little experience, and nearly always by a sort of *coup d'arrêt*. Clemenceau, who got home on the high outside line of the Prince de Chimay, afforded another such example. A still more striking example was afforded by M. Ferrette, of the Chamber of Deputies, who had no experience with the sword, killing M. Marlier, a municipal councillor, who was a good fencer. Ferrette, acting on excitement and instinct, delivered an effective *coup d'arrêt* on the "préparation" of his adversary.

It was due to incidents of this kind that M. Baudry, a noted professor, established some years ago a school which has become very popular and of which the object is the instruction in sword play with sole reference to the duel. In Baudry's guard the sword is horizontal. The body is "effaced"

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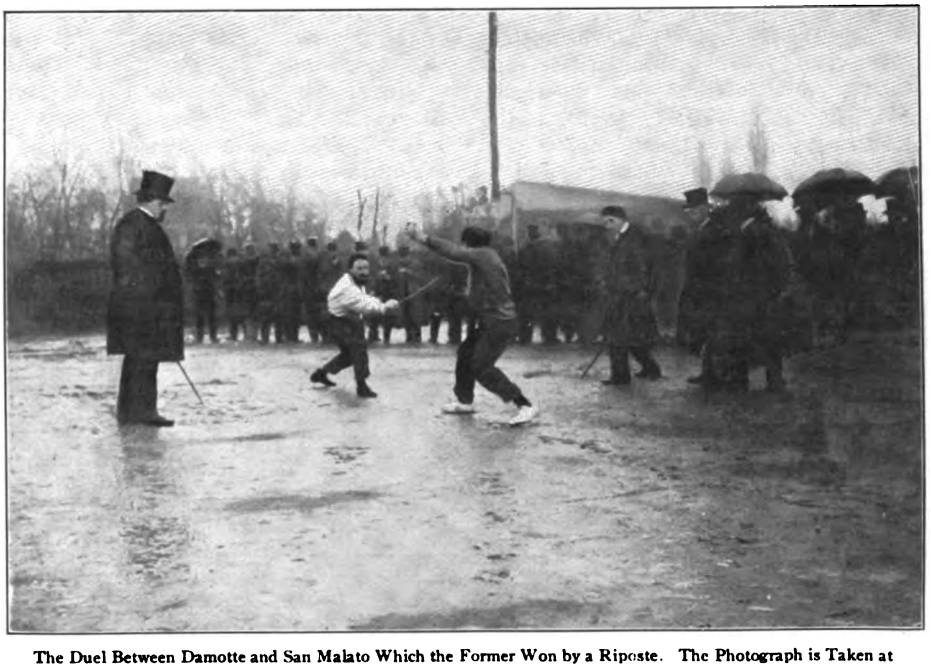
as in the Italian guard, but the position of the limbs is less constrained.

Baudry has written a volume to expound his method and to criticise the classic school, but it may be said briefly that his principles amount to this. He uses only two simple parries, the quarte and the sixte, and the counters, the *contre de sixte* being his favorite parry. He parries always with opposition, and never retracts the arm. This is a notable point. He uses wrist work in his parries, simple and counter. When the adversary moves out of the position of sixte to quarte, Baudry brings him back to it by a counter; otherwise, on the theory that the hand or arm becomes exposed in movements out of the straight line, he attacks those parts by a sort of *coup d'arrêt*. He thus attacks by ripostes on attacks. He has one or two attacks of his own, one being a smart beat in seconde followed by a thrust in sixte; another a *pression* in seconde, followed by the first movement of a *liement*, with a disengagement in sixte; another a strong opposition in sixte carrying the adversary's sword high, which he moves quickly up to his side, *corps à corps*, and thus preventing the adversary from thrusting, disengages his sword and uses it with a kind of stabbing movement upward.

Baudry's system is simplicity itself, to all appearance, and it has been wonderfully successful in duels. Baudry's method to be well employed against a good swordsman really implies considerable skill, coolness, judgment, precision, and quickness. It has borrowed a few points from the Italian, and for the rest is only a specialization of play which exists in the classic French method. It is, however, a clever, practical criticism on the tendency to too much convention in foil play if the foil be regarded as an instrument of preparation for duelling. Moreover, a course of Baudry will be found valuable even to the expert swordsman.



The Duel Between Damotte and San Malato Which the Former Won by a Riposte. The Photograph is Taken at the Instant of Damotte's Beginning His Winning Stroke.

The Italians, especially those who like Conte have had great experience of the French method, have adopted many of its features; and on the other hand it is quite possible, while retaining the fine form of the French school, to introduce into it many of the Italian characteristics—the authority of their parries, their *coups de temps* and *d'arrêt*, their *remises* and *redoublements*, their agility, and the "mordant" spirit of their play. The French

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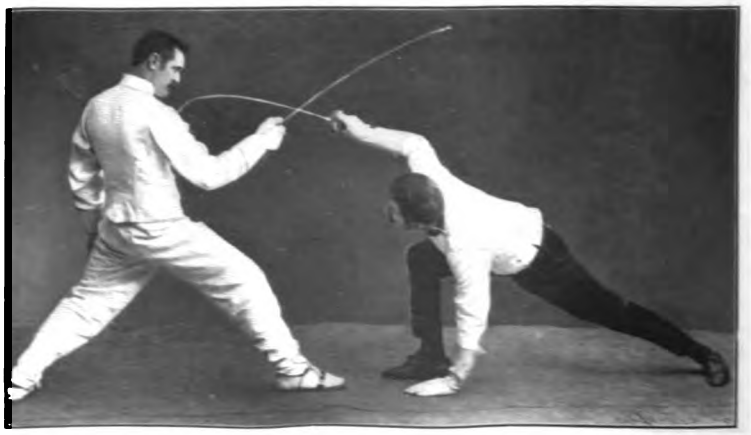
theory is, however, theoretically so perfect that every stroke finds its place in the system, and certain effects, such as those of the *inquartata* and the *passata sotto*, may be regarded as dodging parries, substituted for the correct parry in the cases in question. Differences of schools, therefore, are formed by drawing out into bolder relief some feature of the standard complete theory or of specializing on some favorite parries or strokes. For instance, Ayat, a brilliant young French professor, has adopted a good deal of the Italian play, their *invites*, their attacks by *coup de temps*, or by *contre-temps*, their thrust in sixte with strong opposition. Lucien Mérignac we have seen practising the stroke in sixte with a *tac*, rather than opposition, but being left-handed he has greater power in this line than the right-handers. Louis Mérignac, perhaps the greatest fencer of a century, and who is still effective in his fifty-fifth year, succeeds in simple strokes, though he is not averse to a brilliant *coupé*. The French *coupé* is the one stroke which is more theatrical in appearance than the Italian equivalent. It is generally delivered from quarte to sixte, the blade being swept along that of the opponent (*froissement*), the point being carried far back, then whipped down directly in sixte, the whole stroke being executed with such speed that the blade fairly sings in the air. If the stroke be only feinted in sixte and the sword be brought into its original quarte by a disengagement, the stroke is called the "tour of the sword." The Italian *coupé* is a short whipping cut over the point of the adversary's sword and is often disconcerting when used as a disengagement. Prévost, the old rival of Louis Mérignac, excels in parries and ripostes in sixte with "authority," and in "spontaneous" attacks. The Rouleaus like the *contre-ripostes* in quarte, and Georges Rouleau is an adept at a stroke which he has especially practised, viz.: feint in seconde as in the final of the *flanconade*, disengage, and strike home in sixte.

As to the relative merit of the Italians and the French, that is a question still undecided. I have seen Pini and Conte fighting the final ties of a *tournoi* in Paris, Pini getting the judges' decision in spite of the protests of the public. But I have also seen Conte beaten by young Desmedt of Brussels, who tied with Georges Rouleau. Lucien Mérignac won the last great *tournoi* with Kirchoffer second. The encounter in Paris between Pini and Lucien Mérignac left the partisans of each respectively convinced of the superiority of their champion. I have generally cited the professors to illustrate the art, as their play is far superior to that of any amateur. M. Chevilliard, who is represented in the figures here shown with Louis Mérignac, has long been considered one of the best amateurs. But it is much more difficult to form an estimate in this case.

The vogue amongst amateurs in France is now certainly towards the duelling sword, and with practice, as far as it is possible, in the open air. The fact, how-



Prof. Conte Succeeds in Touching Savargue with a Passato Sotto.

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ever, that the first touch decides a bout, and the influence of Baudry's teaching, have done much to rob this play of its interest as a sport. I have seen a bout won finally by Captain Debax, which lasted nearly an hour before the touch was made. The attitude of Debax was a crouching one, but full of wary alertness. He would spring up suddenly and "throw" the sword point at the hand or fore-arm of his adversary, who thereupon would spring back. By dint of springing back he covered about a hundred yards of space before he was struck. This sport looked tame, especially on a bleak winter's day as it was, but it had nevertheless an interest of its own. Those who attempted any other defence with Debax were hit in a very short time.

There are some two hundred *salles d'armes* in Paris; consequently it will be seen that the number of students of the sword must amount to many thousands—possibly, counting "non-playing" members, six thousand. Not a great percentage are constant in their exercise, though between five and seven o'clock every evening in winter the salles are resorts full of animation, where the sword in all its forms, and nothing but the sword, is talked "in all its moods and tenses." The general appearance of all the salles is the same—a large room ornamented only with swords of various kinds hung on the walls, and with space for about half-a-dozen bouts to proceed at the same time. There are two, three, or more *prévôts*, or assistants, actively engaged besides the professor. The *chic* salles have baths, a great thing in Paris, and even masseurs attached. The list of subscribers to the best salles numbers between forty and a hundred. The *clientèle* comprises a good sprinkling of the French nobility, sportsmen generally, officers of the army, authors, journalists, artists, scientists, financiers, and the like. There are also a few ladies, who have special hours, particularly in Mérignac's, Conte's, Ayat's, and Gabriel's, Madame Gabriel being an expert swordswoman and teacher. Sir Charles Dilke, when he goes to Paris, always looks in upon Baudry and practises a few tricks with which he astonishes the professors in London. Count Boni de Castellane, well known to Americans, patronizes Ayat's, as does also Prince Henri d'Orléans. Prince de Chimay keeps up his form at Rouleau's.

The attractions of the "five to seven" is one alone in the exercise. The cult of the sword in Paris is a thing of tradition, of ceremony; and a special atmosphere of sport united to distinction of manners has always reigned in the best academies. And so it happened that many financiers and rich *bourgeois* seek admittance not so much on account of their fervor for the sword as with the desire to "create relations" as they call it—that is to say, to form connections—with people in good society. Then again fencing is encouraged by various Societies of great influence, and every form of sword play has its representative body.

The French School prevails in most of the capitals of Europe. Italy stands by her own, of course; Vienna has pronounced for the Italian method; Berlin is equally divided. London and New York have adopted the French school.

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INDIAN BLANKETRY

By GEORGE WHARTON JAMES

WHAT a marvelous art is that of weaving, and how much the human race of to-day owes to the patient endeavors of the "little brown woman" of the past for the perfection to which she brought this—one of the most primitive of the arts. We have already seen how basketry had its origin, and what an important place it held in aboriginal life. Blanketry was a necessary outcome of basketry. The use of flexible twigs for baskets readily suggested the use of pliable fibres for textiles, and there is little question that almost simultaneously with the first rude baskets the first textile fabrics made their appearance.

It is strange, too, what a close relation the textile art bears to pottery as well as to basketry. It is to the art of working in clay that we owe much of our knowledge of primitive weaving, as Professor Holmes has well shown in his Prehistoric Textile Fabrics Derived from Impressions on Pottery. From impressions found on fragments of pottery he reconstructed the original fabrics, and the methods followed in weaving them in prehistoric times.

Whence the art had its origin, we do not know. But it is matter of record that, in this country, three hundred and fifty years ago, when the Spanish first came into what is now United States territory, they found the art of weaving in a well advanced stage among the domestic and sedentary Pueblo Indians, and the wild and nomad Navahoes. The cotton of these blankets was grown by these Arizona Indians from time immemorial, and they also used the tough fibres of the yucca, and agave leaves and the hairs of various wild animals, either separately or with the cotton. Their processes of weaving were exactly the same then as they are to-day, there being but slight differences between the methods followed before the advent of the whites and after. Hence, in a study of Indian blanketry, as it is made even to-day, we are approximating nearly to the pure aboriginal methods of pre-Columbian times.

Archæologists and ethnologists generally presume that the art of weaving on the loom was learned by the Navahoes from their Pueblo neighbors. All the facts in the case seem to bear out this supposition. Yet, as is well known, the Navahoes are a part of the great Athabascan family, which has scattered, by separate migrations, from Alaska into California, Arizona and New Mexico. Many of the Alaskans are good weavers, and according to Navaho traditions their ancestors, when they came into the country, wore blankets that were made of cedar bark and of yucca fibre. Even in the Alaska (Thlinket) blankets, made to-day of the wool of the white mountain-goat, cedar bark is twisted in with the wool of the warp. Why, then, should not the Navaho woman have brought the art of weaving, possibly in a very primitive condition, from her original Alaskan home? That her art, however, has been improved by contact with the Pueblo, Hopi, and other Indians. there can be no question, and, if she had a crude loom, it was speedily replaced by the one so long used by the Pueblo. Where the Pueblo weaver gained her loom we do not know, whether from the tribes of the South, or by her own invention. But in all practical ways the primitive loom was as complete and perfect at the Spanish conquest as it is to-day.

Any loom, to be complete, must possess certain qualifications. As Dr. Mason has well said: "In any style of mechanical weaving, however simple or complex, even in darning, the following operations are performed: First, raising and lowering alternately different sets of warp filaments to form the 'sheds'; second, throwing the shuttle, or performing some operation that amounts to the same thing; third, after inserting the weft thread, driving it home, and adjusting it by means of the batten, be it the needle, the finger, the shuttle, or a separate device."

The frame is made of four cottonwood or cedar poles cut from the trees that line the nearest stream or grow in the mountain forests. Two of these are forked for uprights, and the cross beams are lashed to them above and below. Sometimes the lower beam is dispensed with, and wooden pegs driven into the

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earth are used instead. The frame ready, the warp is arranged on beams which are lashed to the top and bottom of the frame, by means of a rawhide or horse-hair riata (our western word lariat is merely a corruption of *lariata*). Thus the warp is made tight and is ready for the nimble fingers of the weaver. Her shuttles are pieces of smooth, round stick upon the ends of which she has wound her yarn, or even the small balls of yarn are made to serve this purpose. By her side is a rude wooden comb with which she strikes a few stitches into place, but when she wishes to wedge the yarn of a complete row—from side to side—of weaving, she uses for the purpose a flat, broad stick, one edge of which is sharpened almost to knife-like keenness. This is the "batten." With the design in her brain her busy and skilful fingers produce the pattern as she desires it, there being no sketch from which she may copy. In weaving a blanket of intricate pattern and many colors the weaver finds it easier to open the few warp threads needed with her fingers and then thrust between them the small balls of yarn, rather than bother with a shuttle, no matter how simple.

But before blankets can be made the wool must be cut from the backs of the sheep, cleaned, carded, spun and dyed. It is one of the interesting sights of the Southwest region to see a flock of sheep and goats running together, watched over, perhaps, by a lad of ten or a dozen years, or by a woman who is ultimately to weave the fleeces they carry into substantial blankets. After the fleece has been removed from the sheep the Navaho woman proceeds to wash it. Then it is combed with hand cards—small flat implements in which wire teeth are placed—purchased from the traders. (These and the shears are the only modern implements used.) The dyeing is sometimes done before spinning, generally, however, after. The spindle used is of the simplest character—merely a slender stick thrust through a circular disk of wood. In spite of the fact that the Navahoes have seen the spinning wheels in use by the Mexicans and the Mormons, who, at Tuba City, live practically as their neighbors, they have never cared either to make or steal them. Their conservatism preserves the ancient, slow and laborious method. Holding the spindle in the right hand, the point of the short end below the balancing disk resting on the ground, and the long end on her knee, the spinner attaches the end of her staple close to the disk, and then gives the spindle a rapid twirl. As it revolves she holds the yarn out so that it twists. As it tightens sufficiently she allows it to wrap on to the spindle, and repeats the operation until the spindle is full. The spinning is done loosely or tightly according to the fineness of weave required in the blanket. There are practically four grades of blankets made from native wool, and it must be prepared suitably for each grade. The coarsest is, of course, the easiest spun. This is to make the common blankets. These seldom have any other color than the native grey, white, brown and black, though, occasionally, streaks of red or some other color will be introduced. The yarn for these is coarse and fuzzy, and nearly a quarter of an inch in diameter. The next grade is the extra common. The yarn for this must be a little finer, say 25 per cent. finer, and is generally in a variety of colors. The third grade is the half fancy, and this is closer woven yarn and the colors are a prominent feature of the completed blankets. These half fancy blankets are those generally offered for sale as the "genuine" Navaho material, etc., and, were the dyes used of native origin, this designation would be correct. Unfortunately, in by far the greater number of them aniline dyes are used, and this, by the wise purchaser, is regarded as a misfortune. The next grade is the native wool fancy. These are comparatively rare blankets, as the yarn must be woven very tightly, and the weaving also done with great care. The highest grade that one will ordinarily come in contact with is the Germantown. This style of blanket is made entirely of purchased Germantown yarn, which has almost superseded the native wool fancy, as, to the ordinary purchaser, a Germantown yarn blanket looks so much better than one made from its Navaho counterpart. The yarn is of brighter colors—necessarily so, owing to the wonderful chromatic garnish offered by the aniline dyes; it is spun more evenly (not necessarily more strongly, and, indeed, as a matter of fact, is far less strong), and (to the Indian) is much less trouble to procure. Then, too,

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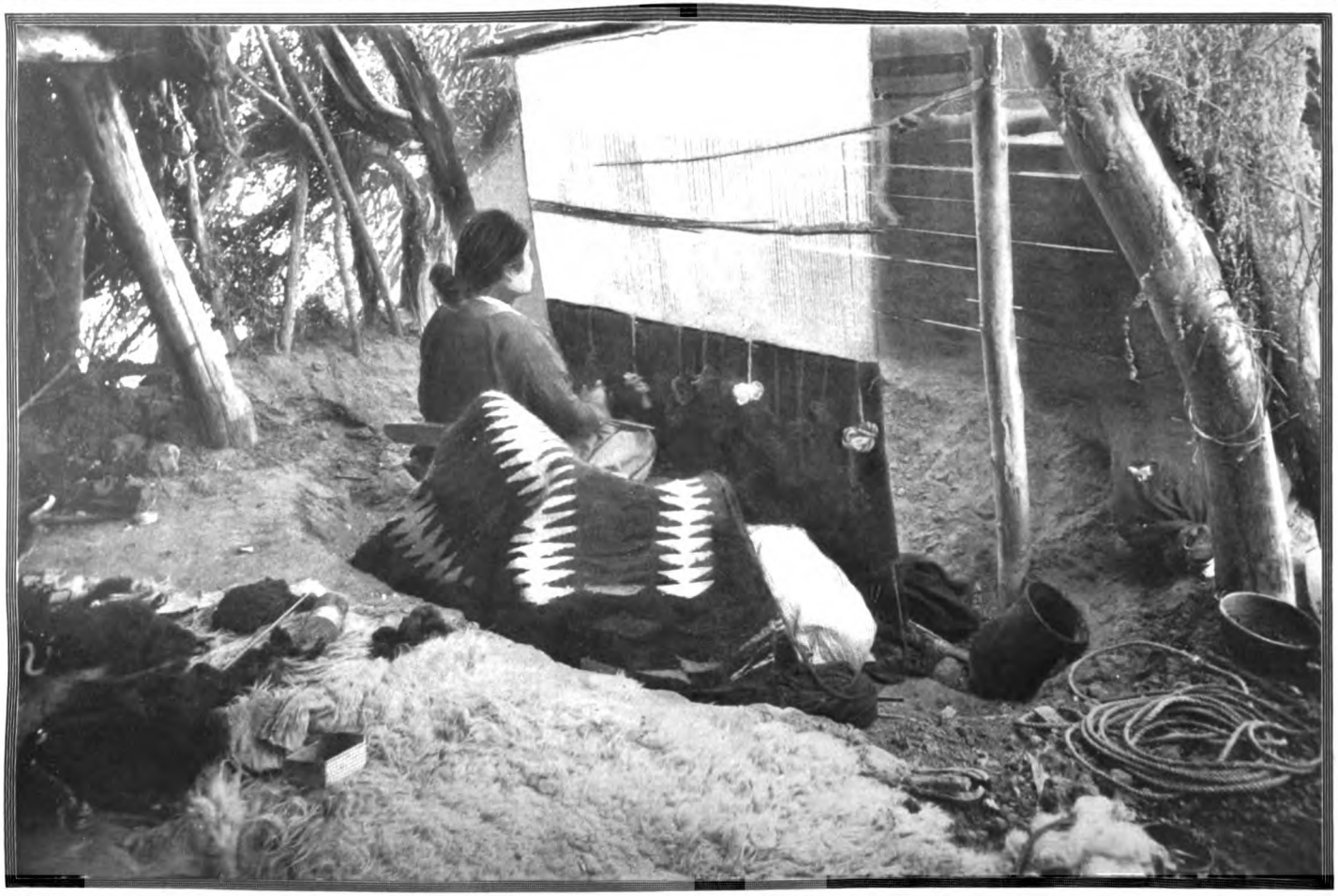

The Navaho Weaver at Her Loom.

Photo copyright, George Wharton James.

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when woven, owing to its good looks, it sells for more than the native wool fancy, upon which so much more work has had to be put. Hence Madame Navaho, being no fool, prefers to make what the people ask for, and "Germantowns" are turned out *ad lib.*

But, to the knowing, there is still a higher grade of blanket. This is not, as one expert (*sic*) would have it, an attempted copying of ancient blankets, but a continuation of an art which he declares to be lost.• There are several old weavers who preserve in themselves all the old and good of the best days of blanket weaving. They use native dyes, native wool—with bayeta when they can get it—and they spin their wool to a tension that makes it as durable as fine steel. They weave with care, and after the old fashions, following the ancient shapes and designs, and produce blankets that are as good as any that were ever made in the palmiest days of the art. Such blankets take long in weaving, and are both rare and expensive.

The common blankets and the extra common are sold by the pound, the price, of course, varying, and of late years steadily increasing. Half fancy blankets are generally sold by the piece, and vary in price according to the harmony of the colors, fineness of the weave, and striking characteristics of the design. This is also true of native wool fancy, the price being determined by the Indian according to her notions of the length of the purchaser's purse. On the other hand, Germantown yarn having a fixed purchasable price, the blankets made from it are to be bought by the pound.

These remarks, necessarily, refer to the original purchases from the Indian. There are no general rules of purchase price followed by traders, dealers, or retail salesmen.

In the original colors, as I have already shown, there are white, brown, gray and black, the last rather a grayish-black, or, better still, as Matthews describes it, rusty. He also says: "They still employ to a great extent their native dyes" of yellow, reddish, and black. There is good evidence that they formerly had a blue dye; but indigo, originally introduced, I think, by the Mexicans, has superseded this. If they, in former days, had a native blue and a native yellow, they must also, of course, have had a green, and they now make green of their native yellow and indigo, the latter being the only imported dye-stuff I have ever seen in use among them. . . . The brilliant red figures in their finer blankets were, a few years ago, made entirely of bayeta, and this material is still (1881) largely used. Bayeta is a bright scarlet cloth with a long nap, much finer in appearance than the scarlet strouding which forms such an important article in the Indian trade of the North."

This bayeta or baize was unraveled, and the Indian often retwisted the warp to make it firmer than originally, and then rewove it into his incomparable blankets. From information mainly gained by Mr. G. H. Pepper, of the American Museum of Natural History, during his three years' sojourn with the Navahoes as the head of the Hyde expedition, I present the following accounts of their native dyes. From the earliest days the Navahoes have been expert dyers, their colors being black, brick-red, russet, blue, yellow, and a greenish-yellow akin to the shade known as old gold.

To make the black dye three ingredients are used, viz.: yellow ochre, pinion gum, and the leaves and twigs of the aromatic sumac (*Rhus aromatica*). The ochre is pulverized and roasted until it becomes a light brown, when it is removed from the fire and mixed with an equal amount of pinion gum. This mixture is then placed on the fire and as the roasting continues it first becomes mushy, then drier and darker, until nothing but a fine black powder is left. This powder is called *keyh-batoh.* In the meantime the sumac leaves and twigs are being boiled, five or six hours being required to fully extract the juices. When both are somewhat cooled they are mixed, and almost immediately a rich bluish-black fluid, called *ele-gee-batoh,* is formed.

For yellow dye the tops of a flowering weed (*Bigelovia graveoleus*) are boiled for several hours until the liquid assumes a deep yellow color. As soon as the dyer deems the extraction of the color juices nearly complete, she takes some native alum (*almogen*) and heats it over the fire, and, when it becomes pasty, gradually adds it to the boiling decoction, which slowly becomes of the required yellow color (*kayel-soly-batoh*).

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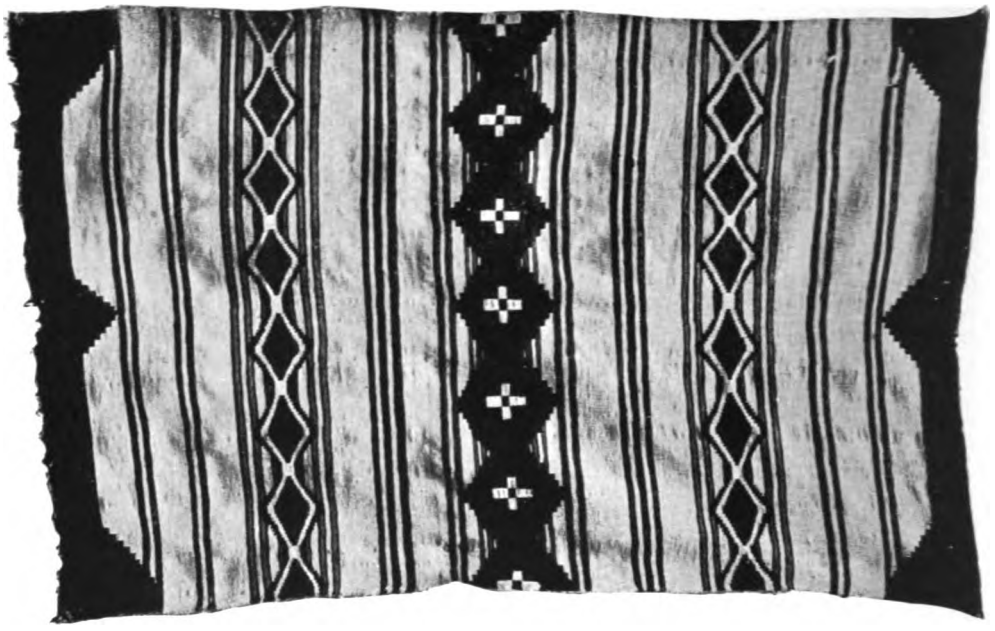

Bayeta Blanket in Collection of Mr. A. C. Vroman, Pasadena, California.

The brick-red dye (*says-tozzie batoh*) is extracted from the bark and roots of the sumac, and ground black alder bark, with the ashes of the juniper as a mordant. She now immerses the wool and allows it to remain in the dye from half an hour to an hour. Whence come the designs incorporated by these simple weavers into their blankets, sashes, and dresses? In this, as in basketry and pottery, the answer is found in nature. Indeed, many of their textile designs suggest a derivation from basketry ornamentation (which originally came from nature), "as the angular, curveless figures of interlaying plaits predominate, and the principal subjects are the same—conventional devices representing clouds, stars, lightning, the rainbow, and emblems of the deities. But these simple forms are produced in endless combination and often in brilliant, kaleidoscopic grouping, presenting broad effects of scarlet and black, of green, yellow, and blue upon scarlet, and wide ranges of color skilfully blended upon a ground of white. The centre of the fabric is frequently occupied with tessellated or lozenge patterns of multi-colored sides, or divided into panels of contrasting colors in which different designs appear; some display symmetric zig-zags, converging and spreading throughout their length; in others, bands of high color are defined by zones of neutral tints, or parted by thin, bright lines into a checkered mosaic, and in many only the most subdued shades appear. Fine effects are obtained by using a soft, gray wool, in its natural state, to form the body of the fabric in solid color, upon which figures in orange and scarlet are introduced; also in those woven in narrow stripes of black and deep blue, having the borders relieved in bright tinted meanders along the sides and ends, or with a central colored figure in the dark body, with the design repeated in a diagonal panel at each corner.

"The greatest charm, however, of these primitive fabrics, is the unrestrained freedom shown by the weaver in her treatment of primitive conventions. To the checkered emblem of the rainbow she adds sweeping rays of color, typifying sunbeams; below the many angled cloud group, she inserts random pencil lines of rain; or she softens the rigid meander, signifying lightning, with graceful interlacing, and shaded tints. Not confining herself alone to these traditional devices, she invents her own methods to introduce curious, realistic figures of common objects—her grass [illegible] weaving

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fork, a stalk of corn, a bow, an arrow, or a plume of feathers from a dancer's mash. Thus, although the same characteristic styles of weaving and decoration are general, yet none of the larger designs is ever reproduced with mechanic exactness; each fabric carries some distinct variation, some suggestion of the occasion of its making, woven into form as the fancy arose."

I have thus quoted from an unpublished MS. of one of the greatest Navaho authorities of the United States—Mr. A. M. Stephen—in order to confirm my own oft-repeated and sometimes challenged statements that the Navaho weaver finds in nature her designs, and that in most of her better blankets there is woven "some suggestion of the occasion of its making."

This imitative faculty is, *par excellence*, the controlling force in aboriginal decoration as far as I know the Amerind of the Southwest.

With many of the younger women, submission to the imitative faculty in weaving is becoming an injury instead of a blessing. Instead of looking to nature for their models, or finding pleasure in the religious symbolism of the older weavers, they have sunk into a lazy, apathetic disregard, and they slavishly and carelessly imitate the work of their elders. This is growingly true, I am sorry to say, with both basket makers and blanket weavers. On my recent trips I have come in contact with many fair specimens, both in basketry and blanketry, and when I have asked for an explanation of the design the reply has been: "Me no sabe! I make 'em all same old basket, or all same old Navaho blanket." Here is perversion of the true imitative faculty which sought its pure and original inspiration from nature. It will not be out of place here to correct a few general misapprehensions in regard to the older and more valuable Navaho blankets. These erroneous ideas are partly the result of the misstatements of an individual who sought thereby to enhance the value of his own collection.

It is true that good bayeta blankets are comparatively rare, but they are far more common than he would have his readers believe. The word bayeta is nothing but the simple Spanish for the English baize, and is spelled bayeta, and not "balleta" or "vayeta." It is a bright red baize with a long nap, made especially in England for Spanish trade (not Turkish, as our "expert" claims), and by the Spanish and Mexicans sold to the Indians. Up to as late as 1893 bayeta blankets were being made plentifully. Since then comparatively few have been made. The bayeta was a regular article of commerce, and could be purchased at any good wholesale house in New York. It was generally sold by the rod, and not by the pound. The duty now is so high that its importation is practically prohibited, the duty, I believe, being 60 per cent. And yet I venture the assertion that I can find several weavers who will imitate perfectly, in bayeta, any blanket ever woven, and that the native dyes for other colors will be used. We are told that an Indian woman will not take the time to weave blankets such as were made in the olden time. I have several that took nine, twelve and thirteen months to make, and if the pay is good enough any weaver will work on a blanket a year, or even two years, if necessary. The length of time makes no difference, as several traders whom I personally know can vouch. Indeed, it would be quite possible to obtain the perfect reproduction of any blanket in existence, which would be satisfactory to any board of genuine experts, the only differences between the new and the ancient blankets being those inseparable from newness and age.

While bayeta blankets are not common by any means they aggregate many score in the mass, and are to be found in many collections, both East and West. It is a difficult matter to even suggest in a photograph or an engraving any idea of the beauty and charm of one of these old Navaho blankets. The bayeta blanket here presented is now in the private collection of Mr. A. C. Vroman, of Pasadena, Cal. It is 30x49 inches in size. The background is white with narrow stripes of bayeta (red) and green. The ends are black, as are also the diamonds near each end. The crosses of the middle pattern of diamonds are in white. This is a fine blanket and in an excellent state of preservation. Mr. Vroman has several other fine old style bayeta Navaho blankets in his collection, and I know of many others as well as those in my own modest assortment, and yet the collector before referred to has presumed to say, speaking of one of his own, "Not

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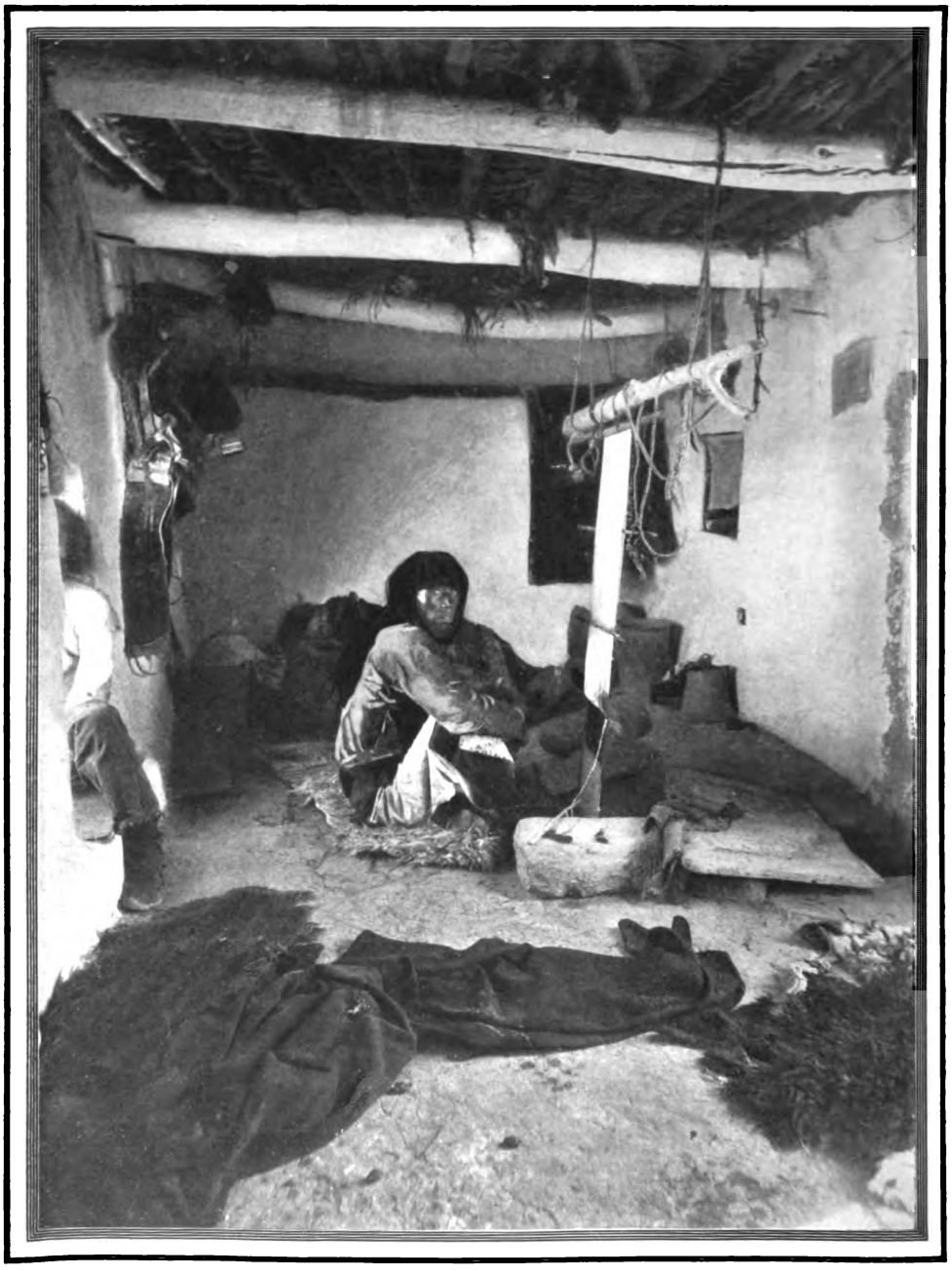

Zuni Squaw Weaving Ceremonial Kilt of Cotton and Wool.

a dozen (similar ones) could be bought at any price!"

It will be observed that I have written as if the major portion of the weaving of Navaho blankets was done by the women. Dr. Matthews, however, writing in or before 1881, says that "there are . . . a few men who practice the textile art, and among them are to be found the best artisans of the tribe." Of these men but one or two are now alive, if any, and seen one only who still did the wea

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On the other hand, among the Pueblo Indians it is mainly the men who perform this work. At all the Hopi villages, at Zuñi, at Acoma, Laguna, and several other pueblos I have photographed the men at work. The loom products, however, are readily distinguishable from those of the Navahoes, the latter having far outdistanced them in the excellency of their work. Only among the Hopi are blankets made that in any way resemble the work of the Navahoes, and these are of the style that would be classed as half fancy or extra common. They are generally, however, woven broad instead of long.

The Hopis to this day preserve the custom of wearing a bridal costume completely woven out of cotton. After the wedding breakfast, the groom's father "takes some native cotton and, running through the village, distributes it among the relations and friends of the family, who pick the seeds from the cotton and then return it. . . . A few days later a crier announces from the roof of a house that on a certain day the cotton for the bridal costume will be spun in the kivas." Here the friends assemble and "the rasping of the carding combs and the buzzing of the primitive spindles" are heard accompanied by singing, joking and laughing of the crowd. This cotton is then woven by either the bridegroom, his father or other male relations, into two square blankets, one measuring about 60 by 72 inches, the other about 50 by 60 inches, and a sash with long knotted fringes at each end. When woven they are given a coating of wet kaolin, which adds to their whiteness.

This preparation of the garments often takes several weeks, during which time the young married couple have resided at the home of the groom's parents. Now the bride, with considerable simple ceremony, walks with one of the robes on, and the other in a reed wrapper, to her mother's home, where, unless her husband has prepared a separate home for them, they continue to reside. The Rev. H. R. Voth fully describes this interesting ceremony in the American Anthropologist. I have two of these cotton gowns in my collection, and they are strong and well-woven. In the Field Columbian Museum, Chicago, is a fine model showing the young bride wearing her new garment going to her mother's home.

In their ceremonial dances the Hopi women wear these cotton blankets, highly embroidered at the sides and edges with red, green, and black wool. Similar in style to these, though long and narrow in shape, are the ceremonial kilts or sashes of the men. In pictures showing the march of the Antelope Priests during the Hopi Snake Dance these beautiful sashes are well shown. In late years a few Navaho weavers have invented a method of weaving a blanket both sides of which are different. The Salish stock of Indians make baskets the designs of which on the inside are different from those on the outside, but this is done by a simple process of imbrication, easy to understand, which affords no key to a solution of the double-faced Navaho blanket. I have purchased two or three such blankets, but as yet have not found a weaver who would show me the process of weaving. Dr. Matthews thinks this new invention cannot date farther back than 1893, as prior to that time Mr. Thomas V. Keam, the oldest trader with the Navahoes, had never seen one. Yet one collector declares he had one as far back as fifteen years ago.

In addition to the products of the vertical loom the Navaho and also the Pueblo women weave a variety of smaller articles of wear, all of which are remarkable for their strength and durability as well as for their striking designs.

In weaving these sashes, belts, hair bands, garters, etc., the weaver uses a "heddle frame" almost exactly similar to those found in Europe and also used in New England. None of these has been found, according to Dr. Mason, in places that assure us of their use before the Spanish occupancy, so the inference is natural that they were introduced by the Conquistadores or the early colonists, 350 years ago.

One of these heddles brought from Zuñi by Major J. W. Powell is here shown. Its crossbars are of wood, 28 inches long. "There are 94 healds of small reeds, 5¾ inches long, and these are attached to the cross bars by lashings of rawhide thong, supplemented by wrappings of yellow yarn. The excursion of the loose warp filaments is 4½ inches up and down. The holes or stirrups through the healds have been bored with hot wire." Other heddles have but sixteen healds, so that but 31

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Hopi Woman in Native Woven Dress and Sash.

warp strands could be used. In my own collection I have several from various pueblos, and they vary in the healds from a small (20) to a large (75) number. These are so rudely made and clumsy in appearance, it seems impossible that any weaver could do good work on them. And yet they make most beautiful sashes and belts, work, indeed, that, of its kind, I have never seen equalled, much less surpassed.

The illustration shows a Zuñi woman at work weaving a sash on one of these heddles. One end of her warp cords wrapped around a cylindrical stick is fastened to some fixed object, in or out-of-doors, as she prefers, the other to a similar stick which is affixed to a strap or belt passed around her waist. Thus she herself is the "tightening machine"—the most flexible and sensitive that could be designed—and she sits or squats as best suits her in the progress of her work. Mason aptly terms this "the most pliant, delicate and responsive of tension devices." He thus describes the processes of weaving: "When the woman and her loom apparatus were set up for work, she raised or lowered the heddle with one hand. The warp filaments which passed through the stirrups in the healds being fixed in their places, were by this movement raised or lowered with the frame, but the alternate threads which passed between the healds remained steadfast and straight. Whether

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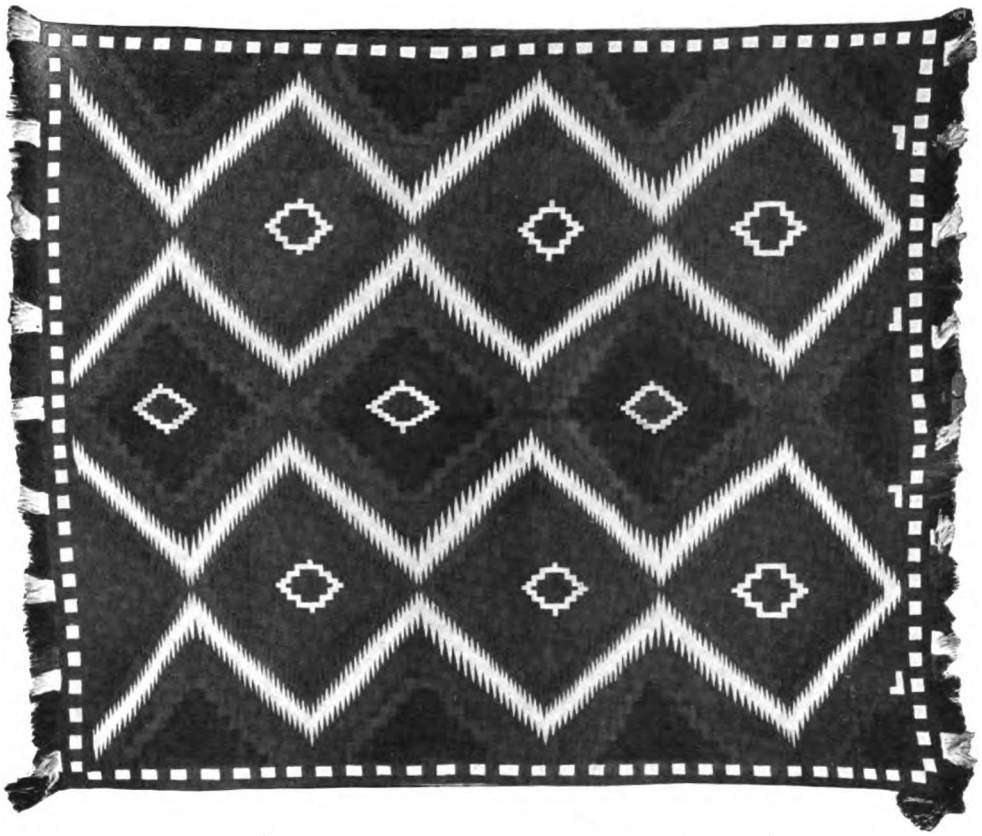

Navaho Blanket of Unusually Good Design Made of "Germantown" Yarn, in Collection of Mr. Caspar Whitney.

the frame was raised or lowered, a "shed" was formed in the warp; the weaver then passed through this shed a simple bobbin or shuttle, often a rod with the weft woven on it, after the manner of a kite string, containing the weft or woof filaments, usually of white thread and quite fine. When the weft had been passed through this shed between the heddle frame and the body of the weaver it was beaten home by means of the shuttle, or with a separate tool. This completed one weft. The alternate warp series were then brought to the top or depressed, and a second shed formed. The shuttle was passed back through this shed and the weft again beaten home. If a pattern was to be wrought, the shuttle was not passed through the shed as described, but worked, as in darning, through a certain number of the upper warp threads each time before a new shed was made."

The Mexicans have always been expert weavers, but their work, though fine, can not be compared for durability and strength, nor, indeed, in artistic design, with the work of the Navaho. Some of their zarapes and ponchos, however, are very beautiful and are highly prized by their possessors, but, unfortunately, like much Navaho work, aniline dyes have driven out the purer and more interesting native colors.

The Thlinkets of Alaska, also, are good blanket weavers, and in the United States National Museum, and also in the Museum of Princeton University, fine collections of their work are to be seen. They generally consist of cape and body blanket. They are made of the wool of the white mountain-goat. The colors are white, black, blue and yellow. The black is a rich sepia, gained from the devil fish; the blue and yellow from two barks indigenous to the Alexandrian archipelago. The white is the native color, and the fringe of both cape and blanket are undyed. To strengthen, or, rather, to give solidity to the garment, the fibrous bark of the yellow cedar root is twisted into the warp.

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THE PARIS AUTOMOBILE SHOW

THE CHANGE FROM MERE SPEED TO COMFORT

By WILLIAM L. WARDEN

NO purely industrial exhibition held in France, or on that side of the Atlantic, has ever attracted so much attention as the automobile show, or to give its full French title—the Fourth International Exhibition of Automobiles, Cycles and Sports—which closed its doors at the Grand Palais in the Champs Elysées last December.

During the fortnight the Palais remained open the crowds of visitors that flocked to the show far excelled the totals attained during the great World's Exhibition of 1900; and the exhibition served to demonstrate to the world the gigantic progress which France has made in the automobile industry and the kindred trades allied with the construction of those delicate in detail, but robust in the whole, pieces of machinery. To give anything like a detailed technical account of such a show within the space of a magazine article would be out of the question, but in the course of the pages at my disposal I shall endeavor to draw attention to the more notable characteristics of this display.

To commence with a few statistics, I may mention that 693 automobiles and 645 cycles were shown at the exhibition, as against 637 automobiles and 562 cycles, as the record of the previous year; the 693 automobiles were divided into 186 heavy cars, 230 light cars and 48 voiturettes, 15 delivery cars, 24 wagons, lorries, omnibuses, etc., and 53 frames not fitted with carriage works. The balance was made up of various light vehicles, including 81 bicycles fitted with small motors, a fact which in passing is worthy of note, as there is a tendency in France to adopt this form of locomotion. The approximate value of these exhibits was put down at 5,586,000 francs, or nearly one million one hundred and twenty thousand dollars.

It is often said concerning French industry that it is the provinces which build up the commerce and strength of the country, and the noisy, pleasure-loving capital which dissipates the wealth and commercial prosperity thus attained. In the matter of the automobile industry the contrary is the case. All the great factories are, if not within the actual walls of the city, certainly in the very near suburbs, and the number of important factories in the provinces are to be counted upon one

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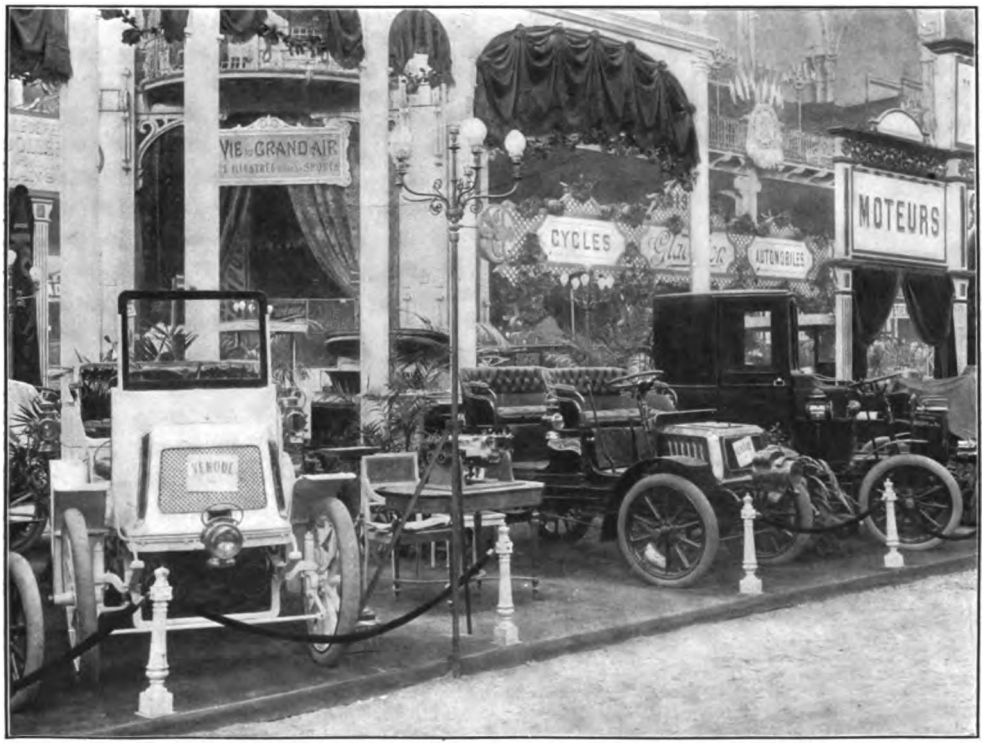
hand. The accompanying photograph of the central dome of the Grand Palais not only shows the balloon which M. Taten is building for M. Deutsch, and which has yet to make its trials, but gives a very good idea of the general automobile show. In what are termed the cellars beneath, there was a great display of alcohol motors and accessories, while in another branch of this monumental building there was an aërostatic section with much that was interesting to disciples of M. Santos-Dumont and other students of the problems of the air.



French Steam Machines. The White One is the Motor Used by General Brugere at the Autumn Manœuvers Before the Czar.

The central floor, however, was entirely devoted to automobiles and cycles, space allotments being only granted to manufacturing firms. This rule was adopted in order to prevent certain local agencies or dealers from asking for as much space as they were likely to get, and then fitting up a stand with cars built by every maker, their sole aim being to effect sales.

Two salient features remain impressed upon the minds of those who carefully inspected the show. The first was the absence of any novelty from the constructive point of view, and the second the almost total absence of the pure and simple racing machine. When I say that the show contained no novelty from the constructive point of view I mean that, broadly, there were no attempts to make radical changes in what have become to be regarded as the cardinal points in automobile construction. At the earlier annual shows we witnessed the gradual transformation of the application of the motive power, and last year saw the introduction of the closed carriage and the comfortable family omnibus. The recent show gave us the vulgarization of these improvements; and if at the first glance and from outward appearances the cars seemed to have remained the same, a very cursory examination of their machinery proved that the manufacturers had by no means been idle, but had devoted their energy to a hundred and one improvements for solidifying and simplifying the general working of their machines.

With regard to the second feature I have mentioned, it is a remarkable fact that though all the great makers used every

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The French Automobile Show at the Grand Palais in the Champs Elysees.

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effort they were capable of in order to construct machines likely to create records in the Paris-Berlin race—and admit that they will do so again during this spring for the Paris-Vienna race—yet I know I am correct in saying that there were only two actual racing machines in the whole show. Racing, a manufacturer explained to me, was a necessary means of advertisement and little more. The average purchaser of an automobile had no more use for a racing machine than he had for a race horse, and consequently there was no incentive for them to show the public that which the public did not want and certainly would not buy.

Messrs. Mors showed upon their stand a huge automobile of the same class and type as that which Fournier drove at an average speed of over 80 kilometres an hour in the Paris-Bordeaux race, which he again used in the Paris-Berlin competition, and on which he created some astonishing records in America. There is, however, nothing practicable about such vehicles developing upwards of 50-horse power and consuming something like a pint of petroleum per mile covered. The speed, moreover, is prohibitive, and the very appearance of such a machine on the thoroughfares of a city is enough to ensure for its driver a whole shower of police summonses. One, however, can overlook the pardonable pride of M. Mors in showing this curiosity, surrounded by the collection of trophies it won; but it is not a machine of every-day use, nor will it even be able to participate in the coming Paris-Vienna race on account of its weight, which is reported to be some 1,250 kilogrammes. Determined to check the construction of monstrosities, and in order to make the racing machine as near akin to the vehicle in every-day use as possible, the powers that be decided that vehicles participating in the coming competition must not exceed 1,000 kilogrammes in weight.

Though the Mors machine won the two great road events last year, it is by no means the best known or most popular automobile of the heavy class in France. The firm with the greatest name, and whose machines enjoy the best reputation among owners, drivers, and everybody concerned, is that of Messrs. Panhard & Levassor, and it is no mere figure of speech among French automobilists when they assert that every other firm of motor constructors have sat upon their doorstep for years past. The aims of new firms, as well as of rival undertakings, is to produce a vehicle on the model of, and equal to those turned out by Panhard. Every vehicle displayed by this firm was a practicable type of car, ready to be taken off the stand and at once put into regular work; copies of these vehicles can be seen by hundreds in the Paris streets or traveling over the French country roads. The 10-horse power Tonneau or tub, and the large white car close to it, is a 16-horse power touring car of which the carriage work is particularly luxurious, and the vehicle is not unlike one purchased last summer by the King of the Belgians; but when His Majesty examined this car in detail he complained that the improvements were so marked as to make his own appear completely out of date.

Another notable exhibit among the heavy cars was that of Messrs. Charron, Girardot and Voight. Hitherto this firm has confined itself to the agency work; but with two of the master minds of the automobile world at the head of the business, it is not surprising that they have turned to account their actual experience gained on the road and in the numerous races they have won, and have built a frame after their own ideals. The best things in the Panhard and Mors vehicles have, of course, been adapted in various forms and disguises, but the great aim of Messrs. Charron and Girardot has been to simplify everything, to make the parts in such a fashion that they can be speedily got at and easily changed, and to produce a maximum degree of rigidity with a minimum of weight. Only a frame was exhibited at the show, but it attracted much attention, and Messrs. Charron, Girardot and Voight were booking orders for early delivery of completed cars. An advertisement in the French automobile press has, during the past week, informed the public that a group of American financiers has provided five millions of francs for the purpose of starting factories for the manufacture of these cars, both in France and the United States.

If the automobile has so assured its place in France as a means of habitual locomotion, I am not quite sure that the result is so much due to the motor manu-

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The Popular Delivery Car of Paris.

facturers as to the carriage builder. Though in some instances the automobile manufacturers undertake the carriage work and upholstering, they generally simply deliver the *chassis* or steel frame upon which the machinery motor and wheels are mounted. Upon this frame the purchaser may have constructed an omnibus, a victoria, a Tonneau or a delivery car; it matters little, for the position of the motive power and component parts will not be altered.

The original idea of the motor manufacturer was that speed sufficed, and that tourists would put up with any amount of discomfort. But those ideas have been dispelled, and it has now been recognized that though speed is desirable, comfort in the shape of cushions, high backs and screens or covers to keep off the rain and wind are not only advisable but are necessities. Once this fact was appreciated the carriage builder set to work, and the result has been the appearance of large numbers of comfortable, roomy, close vehicles such as were shown at the exhibition, and such as can be seen at any hour of the day in the Paris streets.

The builders of steam and electric vehicles have notably profited by this display of public appreciation for comfort, but only one firm of steam automobile constructors, however, has achieved any degree of success in France. That firm is Messrs. Gardner Serpollet. The form of their vehicles does not materially differ from the cars generally having vogue in France. A white car they exhibited was loaned to General Brugere, the generalissimo of the French army during the last autumn manœuvres, and surprised the Tsar and those who accompanied him by its marvellous turn of speed. A closed vehicle they also exhibited is a useful conveyance which has achieved a certain success in Paris. The utilization of steam as the motive power has one great attraction to some people; the cars thus propelled are noiseless, and the petroleum burners used to heat the water give off no offensive odors. The boiler problem is, however, the great difficulty, and I do not think that M. Serpollet, though his cars have attained a speed of 100 kilometres an hour, has yet got quite the right thing. His latest type of vehicle weighs between 750 and 800 kilogrammes and has a provision of water sufficient for 300 kilometres. The boiler also is now being constructed of nickel and steel tubes which do not rust, are more resisting, and at the same time are extremely light. Those persons who have used Serpollet cars, as they are termed, for city work are well satisfied with them, and among these can be included King Edward VII. of England, who purchased a Serpollet vehicle about twelve months ago. The adoption of the car by the King has naturally secured a certain amount of favor for the vehicle in England.

The Voiturette.

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In Paris, however, people who have adopted the automobile for their carriage work have chiefly had recourse to electricity as the means of propulsion. The electric carriages shown at the exhibition, as well as those to be seen on the Paris streets, are vehicles of great luxury, and consequently very expensive. Messrs. Krieger are practically the only French firm of any note who have made a specialty of electricity as a means of locomotion, but their vehicles do not come up to those turned out by the Société Française de Constructions de Voitures Electrique, which, though it has a very high-sounding French name, is practically an American concern. In these vehicles the storage batteries are of American make; and French builders are undoubtedly looking to the United States for further improvements, one may say a revolution, in connection with this question. At present the batteries can only store sufficient energy to drive the vehicles about 100 kilometres. They are consequently not used for work outside the city, where charging stations are few and far between. But as this class of vehicle lends itself to great luxury, it has caught on with what may be termed the swell set and fashion leaders of the two capitals. Two carriages shown were purchased, one by Madame Melba, the famous prima donna, and the other by Mrs. Langtry, the Jersey Lily. A third car was sold to Lady Wilton; it may or may not be some satisfaction to them to know that in adopting this class of vehicle they are following a fashion set by that very Parisienne personage, La Belle Otéro, some months since.

No article dealing with either the heavy vehicles of the automobile exhibition or with the industry in France would be complete without a reference to the use to which the new means of locomotion is being put in Paris and other big towns for the purpose of tradesmen's carts, delivery vans, etc. The statue of Vercingetorix was one of the curiosities of the display. This gigantic mass of bronze was shown upon the steam De Dion lorry which brought it from the founders, and which at the moment of writing is conveying it over the ranges of central France to Clermont Ferrand, where it is to adorn one of the public squares. The statue weighs about six tons, and the speed of the vehicle upon the road is about six miles an hour.

Typical "Light" French Cars. The One on the Left is of German Make, Built Especially to Compete with the French Manufacturer.

The use of these lorries is as yet somewhat limited, but the delivery car is of a class of vehicle of which a number are possessed by all the great Parisian dry goods shops, and which are being largely used for all kinds of delivery vans. This 10-horse power Peugeot car is fitted with an ordinary petroleum motor, and is the type of vehicle which has been adopted by the Minister of Posts and Telegraphs for mail vans which run out to the suburban post-offices and also between the central office and the railway terminus. When running at a useful speed for the class of work they are called upon to perform, and carrying a load of 1,000 kilogrammes, these vehicles burn about one litre of petroleum for every 5 kilometres covered. By way of com-

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parison I may mention that a 20-horse power Panhard will burn one litre for every 6 kilometres, a 12-horse power car 1 litre for every 8 kilometres, while the vehicles of the voiturette class consume a litre, which is 1¾ pints, for about every 10 kilometres' run.

The craze this season in Paris—and it seems likely to continue—has been for the lighter class of cars and for the voiturette, the best idea of which is gathered from the weight, which may be anything between 400 and 650 kilogrammes. Almost the entire trade is now centring its activity upon building vehicles within these limits. Messrs. Panhard have fallen in with the general spirit of the times and are constructing light vehicles of 5-horse power and upwards. Their prices still rule relatively high, the cost of a 5-horse power car with ordinary carriage work from this firm being 6,250 francs, and a 20-horse power vehicle 26,000 francs.

The form chiefly given to these small vehicles is that known in France as the Tonneau or tub—that is to say, there are two seats in front and two behind. Of the manufacture of this class of car there is no end. The originators of the lighter vehicle were undoubtedly Messrs. De Dion and Bouton. For serviceable road work their cars are still hard to beat, and it is no exaggeration to say that every light automobile on the road at the present time is more or less a copy of the vehicle they first built three years ago, in the same way that the heavier vehicles are copied from the Panhards. But Messrs. De Dion are conservative in their methods. When they commenced building the voiturette the motive power was placed at the back and was applied more or less directly to the rear wheels. Experience proved that the power was best in front, and manufacturers made the required changes. Not so, however, with Messrs. De Dion, and at the exhibition of 1900 theirs was the only car to retain the old system. This year, however, they have had to give way before the weight of public opinion, and the cars exhibited at the last show all have their motors in front, the power being transmitted to the rear wheels by a central shaft instead of the chains which have to be used in the heavier cars. Messrs. DeDion equally still adhere to the single cylinder type of motor. Other manufacturers who have copied many of their ideas have nearly all made their motors at least double cylindered; and in some cases light vehicles, such as the Mors 8-horse power car, are fitted with four cylinders. Results, how-

The Popular Electric Cab of Paris. The Two Here Shown Belong Respectively to Mme. Melba and Mrs. Langtry.

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ever, certainly justify Messrs. De Dion in their conservatism. In addition to turning out completed cars they supply their motors to numerous other manufacturers who fit them in their own vehicles. Of this composite construction is the Renault voiturette, which in France enjoys the reputation of being one of the best light vehicles on the road. Unfortunately the firm's output is very small. Last year it did not exceed 450 cars, and this year one of the Renault Brothers told me he did not think they would exceed 650 at the outside. In the Paris-Berlin race a little car built by this firm and fitted with a 6-horse power single cylindered De Dion motor arrived eighth in the general order of placings and was first among the light cars. On every side at the exhibition light cars were to be found. The illustration of light cars is typical of all this class of carriages, the prices of which range between five and seven thousand francs. The car on the left is a vehicle of German manufacture. This vehicle, with the exception of the water-cooling apparatus, is practically a copy of a Panhard. Its chief chance of success on the French market would have been its cheapness compared with the Panhard car, but upon hearing of the competition the French firm promptly lowered its prices. At present there is no doubt that they are asking and obtaining full prices, but as competition increases these will come down. French automobilists equally hope ere long to be able to utilize alcohol instead of petroleum. Being the greatest beetroot growing country in the world, alcohol could be manufactured in sufficient quantities and, it is said, placed upon the market at the price of 20 centimes per litre as against nearly 50 centimes per litre paid for petroleum, where there are no town dues. These dues have to be considered, as, whereas in Paris petroleum is 75 centimes per litre, once beyond the city's walls it can be purchased for from 45 to 50 centimes per litre. Many Frenchmen believe there is a great future for alcohol-driven vehicles. The horse power developed is a little less and the quantity consumed per kilometre a little more, but the saving is great. At the present time the automobile trades give employment to over 200,000 persons in France; and the trade is as yet only in its infancy.

THE STORY OF THE TRAPPER

III—THE WOLF AND THE INDIAN

By A. C. LAUT

I.

IT is dawn when the Indian Trapper leaves his lodge.

In mid-winter of the Far North, dawn comes late. Stars, which shine with a hard, clear, crystal radiance only seen in northern skies, pale in the gray morning gloom; and the sun comes over the horizon dim through mists of frost-smoke. In an hour the frost-mist, lying thick to the touch like clouds of steam, will have cleared; and there will be nothing from sky-line to sky-line but blinding sunlight and snowglare.

The Indian Trapper must be far afield before mid-day. Then, the sun casts no man-shadow to scare game from his snares. Black is the flag of betrayal in northern mid-winter. It is by the big liquid eye, glistening on the snow like a black marble, that the Trapper detects the white hare; and a jet tail-tip streaking over the white wastes in dots and dashes tells him the little ermine, whose coat must line some emperor's coronation robe, is alternately scudding over the drifts and diving below the snow with the forward wriggling of a snake under cover. But the moving man shadow is bigger and plainer on the site- than the hare's eye or the ermine's indian

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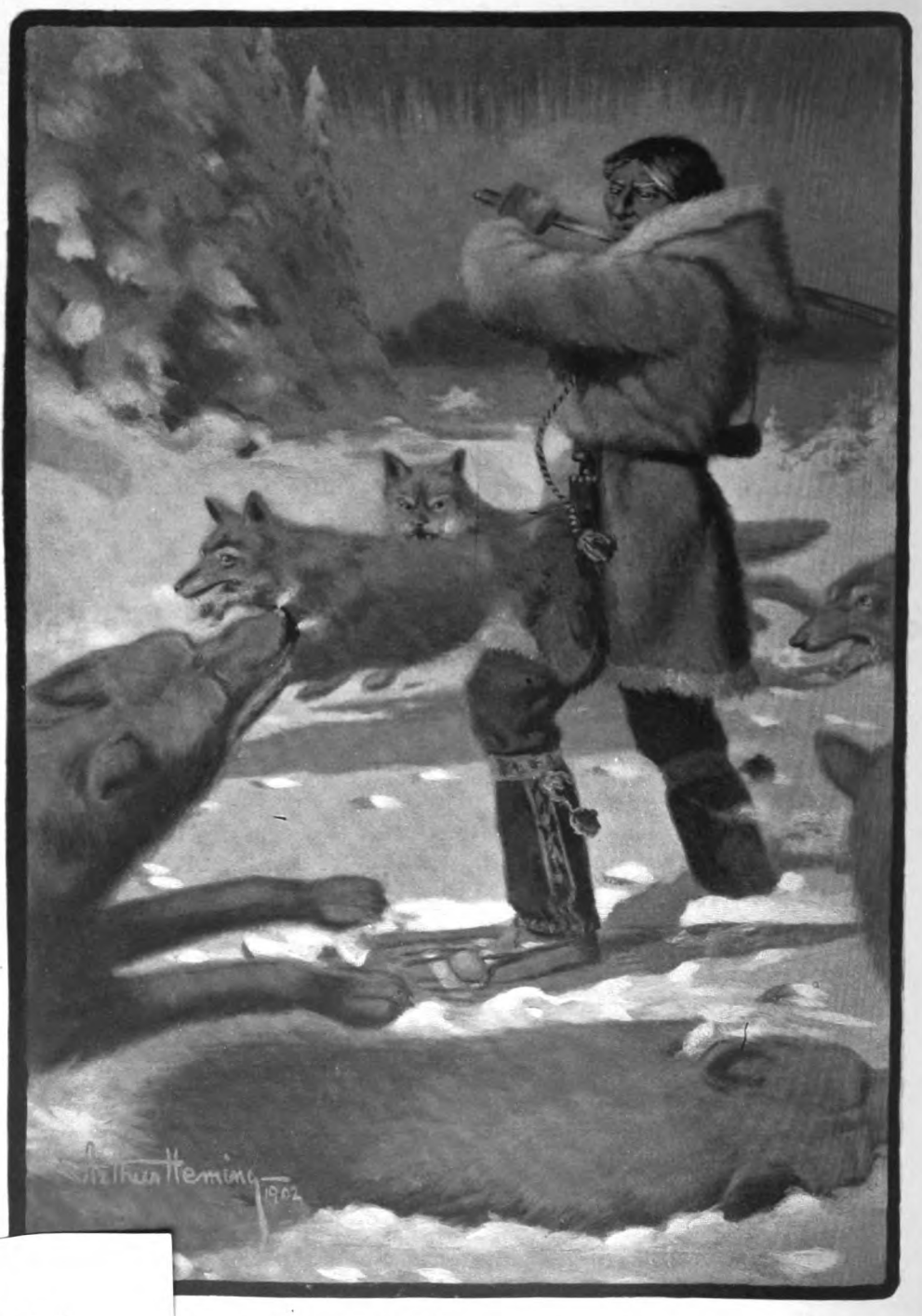

ng sweep of the uplifted arm, * * *
ng for the forward bound."

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so the Indian Trapper sets out in the gray darkness of morning and must reach his hunting grounds before high noon.

With long snow-shoes, that carry him over the drifts in swift, coasting strides, he swings out in that easy, ambling, Indian trot, which gives never a jar to the runner, nor rests long enough for the snows to crunch beneath his tread.

The old musket, which he got in trade from the fur post, is over his shoulder, or swinging lightly in one hand. A hunter's knife and short-handled woodman's axe hangs through the beaded scarf, belting in his loose, caribou capou. Powder horn and heavy musk-rat gauntlets are attached to the cord about his neck; so without losing either he can fight bare-handed, free and in motion, at a moment's notice. And somewhere, in side pockets or hanging down his back, is his *skipertogan*—a skin bag with amulet against evil, matches, touchwood and a scrap of pemican. As he grows hot, he throws back his hood, running bare-headed and loose about the chest.

Each breath clouds to frost against his face till hair and brows and lashes are fringed with frozen moisture. The whiteman would hugger his face up with scarf and collar the more for this; but the Indian knows better. Suddenly chilled breath would soak scarf and collar wet to his skin; and his face would be frozen before he could go five paces. But with dry skin and quickened blood, he can defy the keenest cold; so he loosens his coat and runs the faster.

As the light grows, dim forms shape themselves in the gray haze. Pine groves emerge from the dark, wreathed and festooned in snow. Cones and domes and cornices of snow heap the underbrush and spreading larch boughs. Evergreens are edged with white. Naked trees stand like limned statuary with an antlered crest etched against the white glare. The snow stretches away in a sea of billowed, white drifts that seem to heave and fall to the motions of the runner, mounting and coasting and skimming over the unbroken waste like a bird winging the ocean. And against this endless stretch of drifts billowing away to a boundless circle, of which the man is the centre, his form is dwarfed out of all proportion, till he looks no larger than the bird above the sea.

When the sun rises, strange color effects are caused by the frost haze. Every shrub takes fire; for the ice drops are a prism, and the result is the same as if there had been a star shower or rainfall of brilliants. Does the Indian Trapper see all this? The whiteman with whiteman arrogance doubts whether his tawny brother of the wilds sees the beauty about him, because the Indian has no whiteman's terms of expression. But ask the bronzed Trapper the time of day; and he tells you by the length of shadow the sun casts, or the degree of light on the snow. Inquire the season of the year; and he knows by the slant sunlight coming up through the frost smoke of the southern horizon. And get him talking about his Happy Hunting Grounds; and after he has filled it with the implements and creatures and people of the chase, he will describe it in the metaphor of what he has seen at sunrise and sunset and under the Northern Lights. He does not *see* these things with the gabbling exclamatories of a tourist. He sees them because they sink into his nature and become part of his mental furniture. The most brilliant description the writer ever heard of the Hereafter was from an old Cree squaw, toothless, wrinkled like leather, belted at the waist like a sack of wool, with hands of dried parchment, and moccasins some five months too odoriferous. Her version ran that Heaven would be full of the music of running waters and south winds; that there would always be warm gold sunlight like a mid-summer afternoon, with purple shadows, where tired women could rest; that the trees would be covered with blossoms, and all the pebbles of the shore like dewdrops.

Pushed from the Atlantic seaboard back over the mountains, from the mountains to the Mississippi, west to the Rockies, north to the Great Lakes, all that was to be seen of nature in America the Indian Trapper has seen; though he has not understood.

But now he holds only a fringe of hunting grounds in the timber lands of the Great Lakes in the cañons of the Rockies, and across that northern land which converges to Hudson's Bay, reaching west to Athabasca, east to Labrador. It is in the basin of Hudson's Bay regions that the Indian Trapper will find his last hunting grounds. Here, climate excludes the whiteman, and game is plentiful. Here, Indian

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Trappers were snaring before Columbus opened the doors of the New World to the hordes of the Old; and here, Indian Trappers will hunt as long as the race lasts. When there is no more game, the Indian's doom is sealed; but that day is far distant for the Hudson's Bay region.

II.

The Indian Trapper has set few large traps. It is mid-winter; and by December there is a curious lull in the hunting. All the streams are frozen like rock; but the otter and pekan and mink and marten have not yet begun to forage at random across open field. Some foolish fish always dilly-dally up stream till the ice shuts them in. Then a strange thing is seen—a kettle of living fish; fish gasping and panting in ice-hemmed water that is gradually lessening as each day's frost freezes another layer to the ice walls of their prison. The banks of such a pond hole are haunted by the otter and his fisher friends. By and by, when the pond is exhausted, these lazy fishers must leave their safe bank and forage across country. Meanwhile, they are quiet.

The bear, too, is still. After much wandering and fastidious choosing—for in Trapper vernacular the bear takes a long time to please himself—bruin found an upturned stump. Into the hollow below he clawed grasses. Then he curled up with his nose on his toes and went to sleep under a snow blanket of gathering depth. Deer, moose and caribou, too, have gone off to their feeding grounds. Unless they are scattered by a wolf-pack or a hunter's gun, they will not be likely to move till this ground is eaten over. Nor are many beaver seen now. They have long since snuggled into their warm houses, where they will stay till their winter store is all used; and their houses are now hidden under great depths of deepening snow. But the fox and the hare and the ermine are at run; and as long as they are astir, so are their rampant enemies, the lynx and the wolverine and the wolf-pack, all ravenous from the scarcity of other game and greedy as spring crows.

That thought gives wings to the Indian Trapper's heels. The pelt of a coyote—or prairie wolf—would scarcely be worth the taking. Even the big, gray timber wolf would hardly be worth the cost of the shot, except for service as a tepee mat. The white Arctic wolf would bring better price. The enormous black or brown Arctic wolf would be more valuable; but the value would not repay the risk of the hunt. But all these worthless, ravening rascals are watching the traps as keenly as the Trapper does; and would eat up a silver fox, that would be the fortune of any hunter.

The Indian comes to the brush where he has set his rabbit snares across a runway. His dog sniffs the ground, whining. The crust of the snow is broken by a heavy tread. The twigs are all trampled and rabbit fur is fluffed about. The game has been rifled away. The Indian notices several things. The rabbit has been devoured on the spot. That is unlike the wolverine. He would have carried snare, rabbit and all off for a guzzle in his own lair. The foot-prints have the appearance of having been brushed over; so the thief had a bushy tail. It is not the lynx. There is no trail away from the snare. The marauder has come with a long leap and gone with a long leap. The Indian and his dog make a circuit of the snare till they come on the trail of the intruder; and its size tells the Indian whether his enemy be fox or wolf.

He sets no more snares across that runway, for the rabbits have had their alarm. Going through the brush he finds a fresh runway and sets a new snare.

Then his snow-shoes are winging him over the drifts to the next trap. It is a deadfall. Nothing is in it. The bait is untouched and the trap left undisturbed. A wolverine would have torn the thing to atoms from very wickedness, chewed the bait in two, and spat it out lest there should be poison. The fox would have gone in and had his back broken by the front log. And there is the same brush work over the trampled snow, as if the visitor had tried to sweep out his own trail; and the same long leap away, clearing obstruction of log and drift, to throw a pursuer off the scent. This time, the Indian makes two or three circuits; but the snow is so crusted, it is impossible to tell whether the scratchings lead out to the open or back to the border of snowy-drifted woods. If the animal had followed the line of the traps by running just inside the brush, the Indian would know.

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But the mid-winter day is short, and he has no time to explore the border of the thicket.

Perhaps he has a circle of thirty traps. Of that number, he hardly expects game in more than a dozen. If six have a prize, he has done well. Each time he stops to examine a trap, he must pause to cover all trace of the man-smell, daubing his own tracks with castoreum, or pomatum, or bears' grease; sweeping the snow over every spot touched by his hand; dragging the flesh side of a fresh pelt across his own trail.

Mid-day comes, the time of the short shadow; and the Indian Trapper has found not a thing in his traps. He only knows that some daring enemy has dogged the circle of his snares. That means he must kill the marauder, or find new hunting grounds. If he had doubt about swift vengeance for the loss of a rabbit, he has none when he comes to the next trap. He sees what is too much for words: what entails as great loss to the poor Indian Trapper as an exchange crash to the whiteman. One of his best steel traps lies a little distance from the pole to which it was attached. It has been jerked up with a great wrench and pulled as far as ever the chain would go. The snow is trampled and stained and covered with gray fur as soft and silvery as chinchilla. In the trap is a little paw, fresh cut, scarcely frozen. He had caught a silver fox, the fortune of which hunters dream, as prospectors of gold, and speculators of stocks, and actors of fame. But the wolves, the great, black, wolves of the Far North, with eyes full of a treacherous green fire and teeth like tucks, had torn the fur to scraps and devoured the fox not an hour before the Trapper came.

He knows now what his enemy is; for he has come so suddenly on their trail, he can count four different foot-prints, and claw marks of different length. They have fought about the little fox; and some of the smaller wolves have lost fur over it. Then, by the blood marks, he can tell they have got under cover of the shrub growth to the right.

The Indian says none of the words which the whiteman might say; but that is nothing to his credit; for just now no words are adequate. But he takes prompt resolution. After the fashion of the old Mosaic law, which somehow is written in the very face of the wilderness as one of its necessities, he decides that only life for life will compensate such loss. The danger of hunting the big, brown wolf—he knows too well to attempt it without help. He will bait his small traps with poison; take out his big, steel wolf traps to-morrow; then with a band of young braves follow the wolf-pack's trail during this lull in the hunting season.

But the animal world knows that old trick of drawing a herring scent across the trail of wise intentions; and of all the animal world, none knows it better than the brown, Arctic wolf. He carries himself with less of a hang-dog air than his brother wolves, with the same pricking forward of sharp, erect ears, the same crouching trot, the same sneaking, watchful green eyes; but his tail, which is bushy enough to brush out every trace of his tracks, has not the skulking droop of the gray wolf's, and in size he is a giant among wolves.

III.

The Trapper shoulders his musket again, and keeping to the open, where he can travel fast on the long snow-shoes, sets out for the next trap. The man-shadow grows longer. It is late in the afternoon. Then all the shadows merge into the purple gloom of early evening; but the Indian travels on; for the circuit of traps leads back to his lodge.

The wolf thief may not be far off; so the man takes his musket from the case. He may chance a shot at the enemy. Where there are woods, wolves run under cover, keeping behind a fringe of brush to windward. The wind carries scent of danger from the open, and the brush forms an ambuscade. Man tracks, where man's dog might scent the trail of a wolf, the wolf clears at a long bound. He leaps over open spaces, if he can; and if he can't, crouches low till he has passed the exposure.

The Trapper swings forward in long, straight strides, wasting not an inch of ground, deviating neither to right nor left by as much space as a whiteman takes to turn on his heels. Suddenly the Trapper's dog utters a low whine and stops with ears pricked forward toward the brush. At the same moment, the Indian, who has been keeping his eyes on the woods, sees a form rise out of the earth among the shadow

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He is not surprised; for he knows the way the wolf travels, and the fox trap could not have been robbed more than an hour ago. The man thinks he has come on the thieves going to the next trap. That is what the wolf means him to think. And the man, too, dissembles; for as he looks the form fades into the gloom, and he decides to run on parallel to the brushwood, with his gun ready. Just ahead is a break in the shrubbery. At the clearing he can see how many wolves there are, and as he is heading home there is little danger.

But at the clearing nothing crosses. The dog dashes off to the woods with wild barking, and the Trapper scans the long, white stretch leading back between the bushes to a horizon that is already dim in the steel grays of twilight.

Half a mile down this openway, off the homeward route of his traps, a wolfish figure looms black against the snow—and stands! The dog prances round and round as if he would hold the creature for his master's shot; and the Indian calculates—"After all, there is only one."

What a chance to approach it under cover, as it has approached his traps! The stars are already pricking the blue darkness in cold, steel points; and the Northern Lights are swinging through the gloom like mystic censers to an invisible Spirit, the Spirit of the still, white, wide, northern wastes. It is as clear as day.

One thought of his loss at the fox trap sends the Indian flitting through the underwoods like a hunted partridge. The sharp barkings of the dog increase in fury, and when the Trapper emerges in the open, he finds the wolf has straggled a hundred yards farther. That was the meaning of the dog's alarm. Going back to cover, the hunter again advances. But the wolf keeps moving leisurely, and each time the man sights his game it is still out of range for the old-fashioned musket. The man runs faster now, determined to get abreast of the wolf and utterly heedless of the increasing danger, as each step puts greater distance between him and his lodge. He will pass the wolf, come out in front and shoot.

But when he comes to the edge of the woods to get his aim, there is no wolf, and the dog is barking furiously at his own moonlit shadow. The wolf, after the fashion of his kind, has apparently disappeared into the ground, just as he always seems to rise from the earth. The Trapper thinks of the "loup-garou," but no wolf-demon of native legend devoured the very real substance of that fox.

The dog stops barking, gives a whine and skulks to his master's feet, while the Trapper becomes suddenly aware of low-crouching forms gliding through the underbrush. Eyes look out of the dark in the flash of green lights from a prism. The figures are in hiding, but the moon is shining with a silvery clearness that throws moving wolf shadows on the snow to the Trapper's very feet.

Then the man knows that he has been tricked.

The Indian knows the wolf-pack too well to attempt flight from these sleuths of the forest. He knows, too, one thing that wolves of forest and prairie hold in deadly fear—fire. Two or three shots ring into the darkness followed by a yelping howl, which tells him there is one wolf less, and the others will hold off at a safe distance. Contrary to the woodman's traditions of chopping only on a windy day, the Indian whips out his axe and chops with all his might till he has wood enough for a roaring fire. That will keep the rascals away till the pack goes off in full cry, or daylight comes.

Whittling a limber branch from a sapling, the Indian hastily makes a bow, and shoots arrow after arrow with the tip in flame to high mid-air, hoping to signal the far-off lodges. But the night is too clear. The sky is silver with stars, and moonlight and reflected snowglare, and the Northern Lights flicker and wane and fade and flame with a brilliancy that dims the tiny blaze of the arrow signal. The smoke rising from his fire in a straight column falls at the height of the trees, for the frost lies on the land heavy, palpable, impenetrable. And for all the frost is thick to the touch, the night is as clear as burnished steel. That is the peculiarity of northern cold. The air seems to become absolutely compressed with the cold; but that same cold freezes out and precipitates every particle of floating moisture till earth and sky, moon and stars shine with the glistening of polished metal.

A curious crackling, like the rustling of a flag in a gale, comes through the tighten-

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ing silence. The intelligent half-breed says this is from the Northern Lights. The whiteman says it is electric activity in compressed air. The Indian says it is a spirit; and he may mutter the words of the braves in death chant:

"If I die, I die valiant,
I go to death fearless.
I die a brave man.
I go to those heroes who died without fear."

Hours pass. The Trapper gives over shooting fire arrows into the air. He heaps his fire and watches, musket in hand. The light of the moon is white like statuary. The snow is pure as statuary. The snow-edged trees are chiselled clear like statuary; and the silence is of stone. Only the snap of the blaze, the crackling of the frosted air; the break of a twig back among the brush, where something has moved, and the little, low, smothered barkings of the dog on guard.

IV.

By and by, the rustling through the brush ceases; and the dog at last lowers his ears and lies quiet. The Trapper throws a stick into the woods and sends the dog after it. The dog comes back without any barkings of alarm. The man knows that the wolves have drawn off. Will he wait out that long northern night? He has had nothing to eat but the piece of pemmican. The heavy frost drowziness will come presently; and if he falls asleep, the fire will go out. An hour's run will carry him home; but to make speed with the snow-shoes he must run in the open, exposed to all watchers.

When an Indian balances motives, the motive of hunger invariably prevails. Pulling up his hood, belting in the caribou coat and kicking up the dog, the Trapper strikes out for the open way leading back to the line of his traps, and the hollow where the lodges have been built for shelter against wind. There is another reason for building lodges in a hollow. Sound of the hunter will not carry to the game; but neither will sound of the game carry to the hunter.

And if the game should turn hunter and the man turn hunted! The Trapper speeds down the snowy slope, striding, sliding, coasting, vaulting over hummocks of snow, glissading down the drifts, leaping rather than running. The frosty air acts as a conductor to sound, and the frost films come in stings against the face of the man whose eye, ear and touch are strained for danger. It is the dog that catches the first breath of peril, uttering a smothered "*woo! woo!*" The Trapper tries to persuade himself the alarm was only the far scream of a wolf-hunted lynx; but it comes again, deep and faint, like an echo in a dome. One glance over his shoulder shows him black forms on the snow-crest against the sky.

He has been tricked again, and knows how the fox feels before the dogs in full cry.

The Trapper is no longer a man. He is a hunted thing with terror crazing his blood and the sleuth-hounds of the wilds on his trail. Something goes wrong with his snow-shoe. Stooping to right the slip-strings, he sees that the dog's feet have been cut by the snow crust and are bleeding. It is life for life now; the old, hard, inexorable Mosaic law, that has no new dispensation in the northern wilderness, and demands that a beast's life shall not sacrifice a man's.

One blow of his gun and the dog is dead.

The far, faint howl has deepened to a loud, exultant bay. The wolf-pack are in full cry. The man has rounded the open alley between the trees and is speeding down the hillside winged with fear. He hears the pack pause where the dog fell. That gives him respite. The moon is behind, and the man-shadow flits before on the snow like an enemy heading him back. The deep bay comes again, hard, metallic, resonant, nearer! He feels the snow-shoe slipping, but dare not pause. A great drift thrusts across his way and the shadow in front runs slower. They are gaining on him. He hardly knows whether the crunch of snow and pantings for breath are his own or his pursuers'. At the crest of the drift, he braces himself and goes to the bottom with the swiftness of a sled on a slide.

The slant moonlight throws another shadow on the snow at his heels.

It is the leader of the pack. The man turns, and tosses up his arms—an Indian trick to stop pursuit. Then he fires. The ravening hunter of man that has been ambushing him half the day rolls over with a piercing howl.

The man is off and away.

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If he only had the quick rifle, with which whitemen and a body guard of guides hunt down a single quarry, he would be safe enough now. But the old musket is slow loading, and speed will serve him better than another shot.

Then the snow-shoe noose slips completely over his instep to his ankle, throwing the racquet on edge and clogging him back. Before he can right it, they are upon him. There is nothing for it now but to face and fight to the last breath. His hood falls back, and he wheels with the moonlight full in his eyes and the Northern Lights waving their mystic flames high overhead. On one side, far away, are the tepee peaks of the lodges; on the other, the solemn, shadowy, snow-wreathed trees, like funeral watchers—watchers of how many brave deaths in a desolate lonely land where no man raises a cross to him who fought well and died without fear!

The wolf-pack attacks in two ways. In front, by burying the red-gummed fangs in the victim's throat; in the rear, by snapping the sinews of the runner's legs—called ham-stringing. Who taught them this devilish ingenuity of attack? The same hard master who teaches the Indian to be as merciless as he is brave—hunger!

Catching the muzzle of his gun, he beats back the snapping red mouths with the butt of his weapon; and the foremost beasts roll under.

But the wolves are fighting from zest of the chase now, as much as from hunger. Leaping over their dead fellows, they dodge the coming sweep of the uplifted arm, and crouch to spring. A great brute is reaching for the forward bound; but a mean, small wolf sneaks to the rear of the hunter's fighting shadow. When the man swings his arm and draws back to strike, this miserable cur, that could not have worried the Trapper's dog, makes a quick snap at the bend of his knees.

Then the Trapper's feet give below him. The wolf has bitten the knee sinews to the bone. The pack leap up, and the man goes under.

* * * * * * *

And when the spring thaw came, to carry away the heavy snow that fell over the Northland that night, the Indians traveling to their summer hunting grounds found the skeleton of a man. Around it were the bones of three dead wolves; and farther up the hill were the bleaching remains of a fourth.*

* A death almost similar to that on the shores of Hudson's Bay occurred in the forests of the Boundary, west of Lake Superior, a few years ago. In this case eight wolves were found round the body of the dead trapper, and eight holes were empty in his cartridge belt—which tells its own story.

THE SLANDERED FROG

By LYNN ROBY MEEKIN

OF all creatures in the animal kingdom the frog has suffered most from slander, prejudice, and ignorance. We are told in our boyhood that frogs cause warts on our hands, and we grow far into maturity and not only fail to seek the truth, but calmly hand down to our children a falsehood that was old a thousand years ago. We read about poisonous toads in literature four and five centuries old, and we accept the untruths along with the traditions of generations, [illegible] we may have the latest encyclo- [illegible]ır elbows.

It is granted that the Bible does not give the frog a very high character, and that may account for impressions which have resisted the influence of time and of science, for many to-day believe all the Bible says, even when it uses speech and animals figuratively. Still, it may be observed in passing that in the plagues that came upon Egypt, the frogs appeared on the land after the waters had become uninhabitable, and the flies and insects came in devastating swarms after the frogs died. In the Psalms is this verse: "He sent divers sorts of flies among them, which

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devoured them; and frogs which destroyed them." This is no attempt at theological interpretation, but it would be scientific to say that the frogs destroyed the flies.

That, indeed, is one of the useful services that the frog performs. Even the common toad, instead of producing warts and carrying poison, is about the best friend the farmer has, for it protects his crops by eating millions upon millions of destructive insects, and does for him what his own unaided efforts could never accomplish.

But that is not all. If it had not been for the frog, man to-day would know far less about himself than he does. Dr. Ecker has called the frog "the physiological domestic animal," and next to the chicken the frog has afforded the most important material for obtaining knowledge about the nerves and muscles and the spinal cord; and it was the web of its feet that first disclosed the truth about capillary circulation. So, both as a means of information and as a faithful worker in the fields and byways of the bread-earning world, the frog has a large claim upon our respect and appreciation. Instead of being venomous the frog—even the toad—is not only a harmless but a very useful member of the earth's great family. Moreover, the frog is a wonderfully built creature. Books of many hundreds of pages have been written about it, with plates showing its amazing construction, and disclosing a multiplicity of nerves and muscles which seem to reach the impossible. But they are all there, and the frog knows how to use them. Then, too, the frog has individuality. For instance, having no ribs in its curious stomach, it is obliged to swallow its breath rather than to breathe. The ten bones in its vertebral column are beautifully adjusted. Its hand has five fingers—that is, four good fingers with the rudiments of the fifth. Its lightning tongue, fixed in front of the mouth, and well supplied with a viscid secretion, is death to the swiftest of insects, upon which it delights to dine. Then its power of propulsion, whether swimming or leaping on land—especially with the bull-frog—is astounding, but when the elaborate system of muscles in its hind feet is dissected the whole thing is explained. If man had proportionately the same power he would not need elevators.

Batrachians—batrachos, the frog—differ from all other vertebrates in having both gills and lungs; it changes from a fish-like thing to a four-legged creature with lungs; it has cold blood, a heart with three cavities and no lower teeth. Its eggs are about a sixteenth of an inch in diameter, and it is hatched in about ten days. In excavations of ancient ruins frogs have been found alive. It is not possessed of occult powers, although in Egypt it was once worshipped as a deity. Even the old idea about the tree-frog being a precursor of rain is not borne out by the scientists, but that does not keep many of the Germans to this day from keeping tree-frogs captive in order to know about going to picnics. Wood frogs hibernate two feet below the surface of the ground. A naturalist recently wrote that a green frog "frequently captures fish as long as itself, sitting for hours with the fish's tail projecting from its mouth waiting for it to digest." As this is written, the morning paper in a New York village reports that a resident found a bull-frog with a young chicken about two-thirds swallowed, and evidently enjoying the over-abundance of the contract.

In this country the main interest is naturally in the bull-frog. More frogs are eaten in the United States than in France, where there are regular froggeries; and, with few exceptions where frogs are cultivated in the vicinity of New York, nature keeps up an abundant supply. The frogs that reach the American table as a rule live their own lives in their own way, thriving along gentle lakes and streams on worms, mollusks and insects, with cool bits of shade for quiet contemplation and digestion.

Bull-frogs, the monarchs of the tribe, are like some people, in that they are not appreciated until they are dead. There is not much to admire in the doleful voice, solemnly calling "jog o' rum," "jug o' rum," as if he were an old toper with an unquenchable thirst. As he sits in his favorite place with the dignity of a judge, and the seriousness of a school trustee, he is not beautiful. His suit of green, with the stripes of olive, is good so far as it goes, but the dusky blotches on his wardrobe suggest patches or the need of benzine. In his expression fear and sadness mingle, for he resents the snakes that like

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to swallow him, even as much as he likes to swallow other things.

The *rana catesbiana*, as the bull-frog is scientifically known, was found by the early visitors to this continent, and among the stories printed in the eighteenth century about his abilities was that a New Jersey specimen had leaped four yards at once, and had upon a wager distanced a young Indian. This record, however, although solemnly printed, does not stand. Modern investigators limit his leaps to something under eight feet. Possibly, however, the bull-frog, like the dollar in the story, went farther in the old days than it does now.

But the leap itself is a remarkable performance—quick, certain, tremendous; the two legs that become dainty morsels for the feast act like catapults, operated by electricity; a black blur through space, a chug on the surface, and your bull-frog is safe below. There are varying stories about the size of the bull-frog. The largest specimen in the United States Museum measures 17 inches from tip to tip, when extended.

One way to catch the bull-frog is with a rod and a line, and a good stout hook on which is placed a fly or a piece of red flannel, for brilliant color attracts him almost as powerfully as food, if indeed, he does not regard it as some new luxury coming his way. In his aggressive movement towards anything red, the bull-frog is well named. The bait is dangled before him, and suddenly his cavernous jaws yawn, he gives a quick leap, and if good luck go with the fisherman, he dangles on the hook, and, jumping and squirming, feels a good deal heavier than he is. There is fun in catching the bull-frog in this manner. The weight of his assault upon the hook when he propels his body earnestly to his destruction, makes you feel for the moment as if you had got a whale, and then you must act quickly, for if the frog gets into the water and has much liberty on the line, he will manage to reach the roots of his home below, and then you will have a great time getting him out if you ever do. The probability is that you will lose your line and hook in the effort. Sometimes after a frog is captured, old hooks will be found still stuck in his mouth, the reminders of other efforts to end his existence. Commercially, the hook and line method is not preferred. There is novelty about it and it is good sport, but it takes long patience, much seeking, and the catch is seldom large.

THE NUTS OF COMMERCE

By ROBERT BLIGHT

I HAVE come to the conclusion that the world is growing too prosaic. As I wandered through the woods one morning, in the fresh, spicy air that follows a touch of frost during the early hours just before sunrise, the nuts lay in profusion over the road, along the path on the hillside, and in the glades of the woodland. The foliage overhead, all around, and down the vistas that led out into the sunlight, was a mass of glory, scarlet, red, russet, and gold. Were it not fo[illegible] of the merciless pencil of an [illegible] with the repetition of a tale [illegible] "as old as the hills," I could go into raptures over the sight. But where were the "lads and lasses" out for a "nutting"? Not one was to be seen. And yet, under a walnut tree scores of tough cases were scattered over the ground; beneath the hickory that hung over the road hundreds of glistening nuts had fallen ready to hand from the receptacles split open by the frost; and along the row of chestnuts gleaming in their golden dress the burs lay wide open, disclosing the glossy brown twins and triplets standing in the centre of the rosette.

As I stood among them, I had a vision of scenes described by poets and limned by

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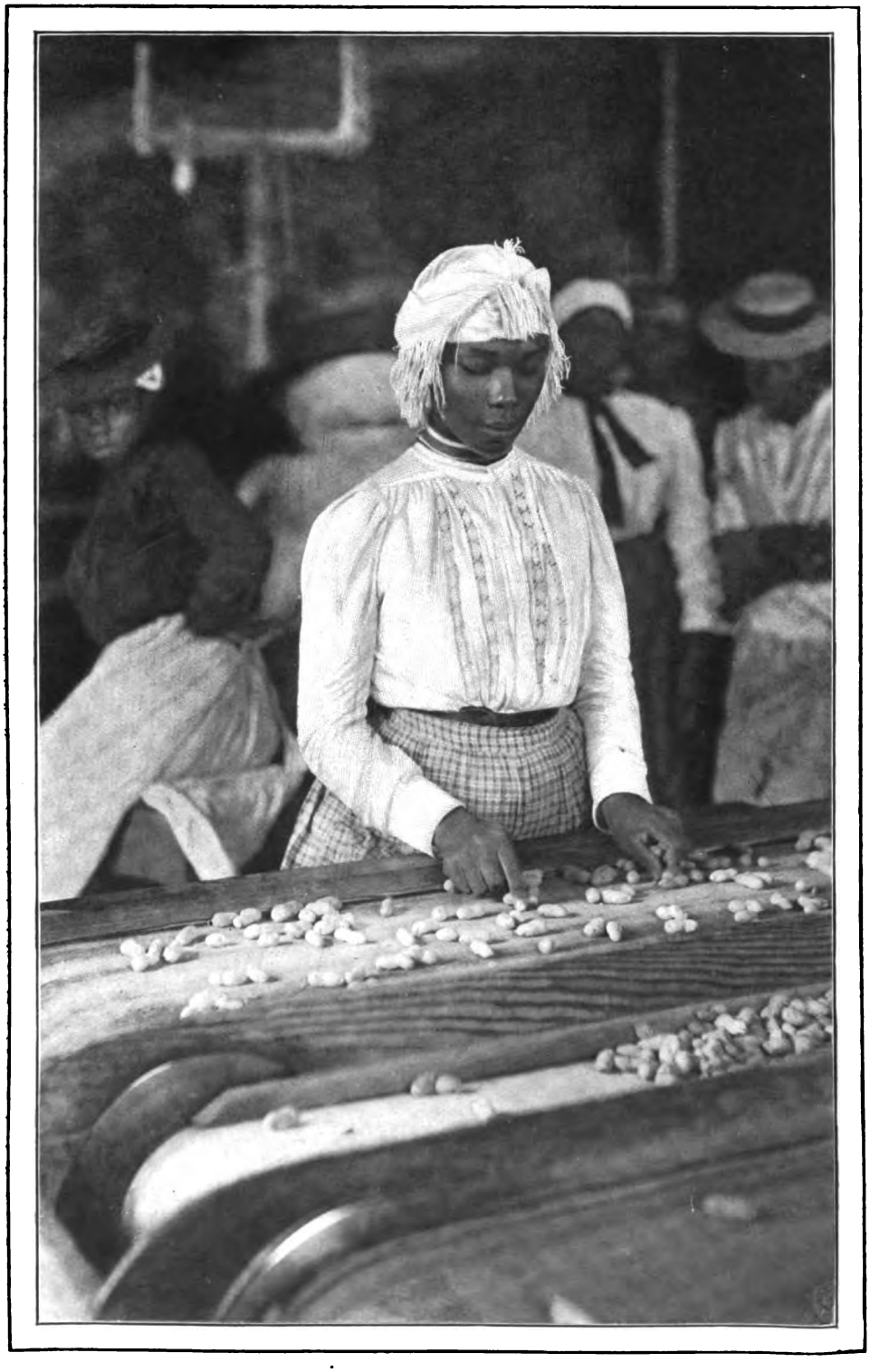

Sorting Peanuts in Virginia. *Photo. by B. S. Campbell.*

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painters, and dreamed that I was back once more in the "Golden Age." I heard the merry laughter of nut gatherers; I saw the gentle politeness of the youth as he held down the bough, and the coy acceptance of the service by the maiden as she picked the spoils; I started at the scream as the fingers were impaled on the chestnut's spiny casing, and smiled at the tender solicitude of him who sought so carefully for the wound; and I laughed at the dainty way in which the walnut was handled lest it should stain the "lily-white hand." I woke to find a man from the city, evidently on business bent, come round the corner and hastily cram into a sack—that suggested a rag collector—every chestnut, shell-bark, and walnut, as if there was an army of competitors behind him; and my romance was over.

Perhaps, after all, we do not lose much by not going a-nutting, for our American nuts of the hazel and walnut kinds are somewhat typical of the race—rather "hard nuts to crack." But more of that hereafter. The day is done, and the evening is chilly; so let us throw another log on the fire and have a talk about nuts. There is a dish of them on the table and a pair of nut crackers, and modern physicians have been kind enough to discover that, in moderation, nuts are not bad food for a race descended from a fruit and nut eating ancestor. It is true that these were not brought by Titania's "venturesome fairy" from the squirrel's hoard, but were bought for sordid cash at the grocer's, round the corner; but, then, they came from a wider range than our woods, and some have ripened beneath sunnier skies. There are hazelnuts, walnuts, pecans, Brazil nuts, and we despise not the pea-nut that has now some prospect of attaining higher honors than it has hitherto enjoyed among "the gods of the gallery."

The hazelnuts are probably those known as Barcelonas, a variety of the English hazelnut, *Corylus Avellana*, and have thinner shells than those of the original stock, because of human selection and a warmer climate. The American hazelnut is much smaller than these, and has so thick a shell that the kernel is but diminutive. England is *par excellence* the home of the hazelnut, the home of those sentimental nuttings that were the delight of poet and painter. There the cultivation of hazelnuts has been carried on for centuries, until varieties have been established which rank highly as dainties. Filberts and cobnuts are to be found in every old-fashioned orchard, and doubtless from the first of these came those memories that have been perpetuated in the Filbert streets of many of our cities. The name is derived from Philibert, a German saint, whose day is August 22. Filberts are elongated and have the involucre completely covering the nut; while cobnuts are rounder, with less husk, and grow in larger clusters. Filberts are far better than these Barcelonas, and cobnuts are just as good.

The name walnut is a curious one. It is, in fact, German, the form in that language being *walnuss*, and sometimes *walschenuss*, and means foreign nut. The application of the name to our species is due to the fact that the black walnut of America, although truly indigenous, belongs to the same genus as that of the tree that supplies Europe with its "foreign nuts," and bears its relationship so plainly on its face that it cannot fail to impress the most casual observer. Both of these, together with our "butternut," came from a common ancestor, which grew in the circum-polar region before the dispersion at the beginning of the glacial epoch. But the wanderings of this thin-shelled nut must have been much greater than those of our two species, for, although its range at one time was from the south of France to Japan, it disappeared from Europe and was introduced again by man from the country south of the Caucasus. Hence its name of foreigner. We now can understand why the Romans called it the Persian nut. The generic botanical name has also a strange origin. In the Golden Age, while men lived on acorns, the gods were said to have subsisted on the seeds of this tree. Hence the nut was called Jove's Nut, *Jovis glans*, and this became *Juglans*. The Greeks called it the Royal Nut, and we keep up the legend by giving the tree the specific name of *regia*. And indeed it deserves it, for where can you find a better nut than a good "paper-shelled" walnut, whether it hails from Europe or Japan?

Nature has done as much for America as she did for the old Greek gods of the Golden Age, for, taking the genus *Carya* instead of *Juglans*, she has produced a

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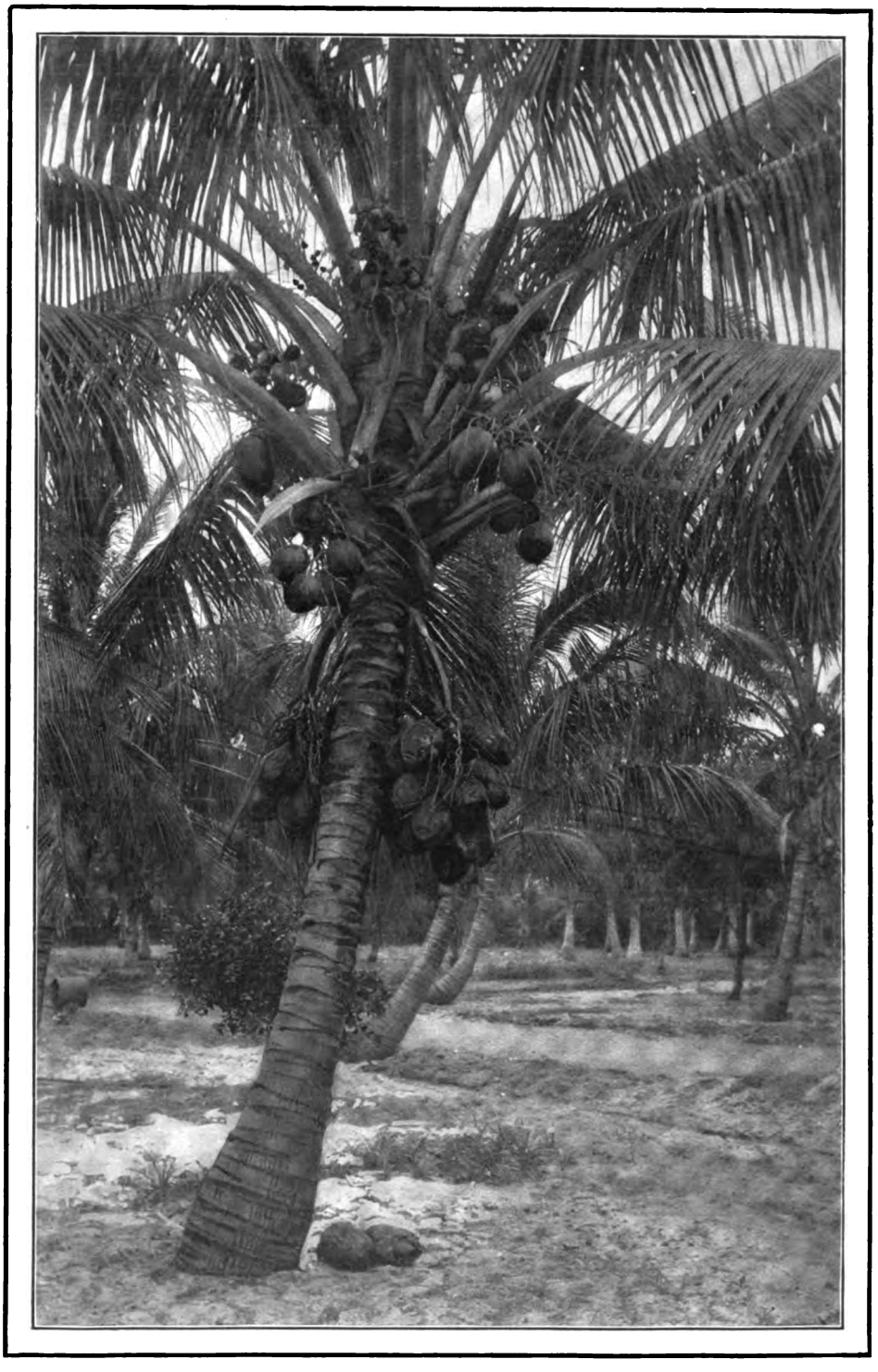

The Food Tree of the Tropics.

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thin-shelled nut for us in the dainty pecan, now daily increasing in favor and importance of cultivation. Indeed, it may well be questioned whether the cultivation of our own olive-leaved *Carya* will not surpass that of the European and Japanese varieties of the royal *Juglans*.

The curious three-cornered, tasty Brazil nuts are the seeds of a remarkable tree called *Bertholletia excelsa*, belonging to the myrtles. It attains an immense height, being sometimes a hundred feet before a branch spreads forth. The trees are curiously buttressed in the lower part of the trunk, the space between the buttresses sometimes accommodating half-a-dozen persons. It is a native of the forests of the Amazon Valley, and it is said that fifty millions of the nuts are exported annually from Para alone. The nuts are produced in large wooden capsules containing from eighteen to twenty-five, and when these capsules fall to the ground they are gathered into heaps, split open by the natives, and thus the nuts are harvested. "To make ropes out of sea sand" is said to be a hopeless task; but it cannot be much more difficult than to replace these nuts when they have been removed from their receptacle, so cunningly are they packed in the capsules. A very similar, and somewhat better, nut is the Sapucaia, the seed of *Lecythis ollaria*, found in the same locality, but not exported in anything like the same abundance, because it is more difficult to gather. As soon as the capsules fall, they split open and the nuts escape. The monkeys, who seem to know a good thing when they see it, as well as a man, seize upon the nuts and thus forestall the natives. If nuts are so valuable for food as modern dietists say they are, it seems a pity that so many thousands of tons of these two species should be annually wasted in the forests of northern Brazil.

Those chestnuts we gathered this morning and placed in the ashes before we sat down, having duly pricked them in orthodox fashion, must be ready now. Right good they are, worth half-a-score each of some of the larger imported nuts, which cannot for a moment compare with these natives in sweetness. Chestnut is an abbreviated form of chesten-nut, the nut of the chesten-tree. Chesten is only the Middle English of the Old French *chastaigne*, which, again, is only a Romance form of the Latin *castanea*. This, once more, is the Latinized form of the Greek name, for among them the nuts took their name from Castana, a city of Pontus, where they abounded. The home of the old-world chestnut is undoubtedly the Mediterranean region, having been established there after the dispersion; and we can only dream about the antiquity of the cultivation, for in Pliny's time they recognized eight noteworthy varieties.

Gray thinks that our American species is only a variety of the European tree, and its smaller size can easily be accounted for on the score of its never having been brought under human cultivation and selection. It still retains its native sweetness, making up in quality what it lacks in quantity. One can readily imagine that the American castanea is a variety of *Castanea vesca*, for the chestnut stock is a sturdy one, not likely to change or die out in a hurry. At Tortworth Park in Gloucestershire, England, there is a chestnut tree that has a history. In the reign of Stephen, king of England (1135), it was called the great Chestnut of Tortworth, a name that carries it well back into the times of easly Saxon kings, at least. In 1878, this tree bore fruit abundantly, and when measured in 1820 its circumference at five feet from the ground was fifty-two feet, with a clear diameter of twelve feet, the dimensions of a cottage room. On the slopes of Mt. Etna, however, there was, in the early part of the last century, a tree before which the Great Chestnut of Tortworth was a mere child. When M. Houel measured it, the circumference was two hundred and four feet. The mighty bole, alas, was hollow, and a family had taken up their residence in the interior; and when fuel was not handy, they supplied themselves by cutting out their walls. It is no wonder that this monarch of the woods was called the Chestnut of a Hundred Horses. When we think of the age of such trees as these, and remember that their fruit-bearing period lasts over a thousand years, there is no difficulty in believing that, although the dispersal of plants southward may have taken place hundreds of thousands of years ago, the slight differences that distinguish our chestnut from that of the old world are merely varietal and not specific, due to

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slight climatic changes from the conditions under which the common ancestor lived. In some other cases, there is no doubt of the actual identity of species, although the broad Atlantic rolls between the present representatives.

Try a peanut. Ah! you smile and say that they are vulgar? Well! that depends entirely upon circumstances. Toothpicks and finger-nail files are often fine works of art, but when you use them as you stand in the queue, waiting to struggle to your seat to see Bernhardt, or at the street corner watching for the next trolley, there are some ill-natured persons who will say that the dainty things are vulgar. It is merely a mistake in logic, putting the blame on the instrument instead of on the agent. Peanuts are good food. At least, so say some of the authorities; and peanut butter has come to be regarded as a dainty, even at some of the mysterious functions in which the chafing dish is brought into requisition. No! I have no shares in either a Virginian farm or a California peanut association. I only wish I had, for the time is coming when we shall walk boldly into the grocery store and ask for peanut oil as calmly as we now request the finest Lucca olive oil, and with a much better chance of getting what we ask for.

The spread of the culture of the peanut is nothing short of phenomenal. A native, probably of Surinam, in Central America, it was introduced in Brazil and Peru in the days of that mysterious civilization of which evidences remain in records and monuments. Then it traveled, perhaps long before Columbus set out on his haphazard journey, and reached China. By that enterprising people (enterprising in those bygone days) it was carried to India, Ceylon, and the Malay Archipelago. Thus, Asian tropics were blessed with a truly American plant. Then, again, Portuguese adventurers, after the discovery of America by belated Europeans, carried the peanut in their slave ships to the African coast; and thus another continent was added to the conquests of the American. Later days have seen it invade Australasia, and its culture there is urged, not only for the sake of food for man in the nuts, but also for cattle in the foliage.

After all, the shell is not a nut, but a pod, as much as the receptacles of our peas and beans are pods. *Arachis hypogæa*, as the learned called the plebeian peanut, is of the leguminous order. If you examined a flower, you would at once be struck with the long two-lipped calyx and the yellow papilionaceous corolla, with its eight stamens united into a single parcel. There is a very long style which ends in a thickened mass covered with hairs, where it comes in contact with the stamens. After fertilization has taken place in the flower, a curious process begins. The stalk that carries the ovary becomes elongated to the extent of two or three inches, and while lengthening, it curves down toward the ground, and ultimately buries itself there. If it cannot enter the earth, it withers, and no fruit is matured. If, however, it can bury itself out of sight, the ovary begins to swell and ripens into the yellowish-white capsule we know so well, contracted in the middle and containing generally two seeds. An allied plant, the *Voandzeia*, has the same habit, and so has a clover which I have picked on the sandy shores of Cornwall in England.

If you are wise, you will never admit the cocoa-nut, as we know it, to your feast. In the form in which it appears in our markets, with its pulp solid and dry, and its milk scanty, whitish, and sickly, it is not food for man, whatever it may be for the other thing. To really enjoy a cocoa-nut, you must go to the regions where it grows, and take it from the palm before the shell has hardened, while the pulp is strictly pulp and the milk is only water. Then you can slice off the top, drink the fluid, and eat the pulp with a spoon. In this way, you may consume as many as four good-sized nuts a day, and be all the better for it. In this way, there is no struggling with a saw, a hatchet, or a hammer; the water is a drink "fit for the gods," and the pulp is no bad substitute for a good custard; and, above all, there is no indigestion. When cocoa-nuts reach us in these cold climates, they are all very well for expressing, for the sake of the oil, but for food—never.

But why are there nuts at all? Plants grow from succulent pumpkins as well as from flinty cocoa-nuts. Seeds are indeed a mysterious study, from the sea cocoa-nut, that weighs some forty pounds, to the little nutlets of some orchid, of which a hundred thousand will not weigh an ounce; from the seed of a species of mistletoe, that pos-

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Gathering Peanuts on a Farm in the Old Dominion.

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tively walks along a branch until it finds a suitable spot, to the walnut, that drops at the very feet of its parent; from the shooting cucumber, that will throw its seeds to a distance of many feet, to the burr that clings to the dress of any one who passes, or to the skin of any animal that touches it. There is a system about these things. Each is doing the best for itself, and the ways of some are devious. Some ancient teleologists—nay, not so very ancient—used to teach that all things were made for the "lords of creation." But such could scarcely explain why I prick my fingers in extracting the chestnut from its shell. You may rely upon it that you and I are not in the reckoning at all. You and I and all of our kind might starve before the walnut would fold its tissues into a facsimile of our brain, and then inclose them in a hard shell, and coat that shell with a bitter and tough integument. It is not for us that the cocoa-nut secretes that half-pint of luscious fluid. As we sit by the fire and crack our nuts, we are doing just what the plants do not want done. The very last thing they expect to befall their offspring is that they should be slaughtered for man's holiday. Nuts are formed for the very purpose of securing the perpetuation of the species. For this the chestnut, for instance, first of all, stores up an amount of rich starch, in order that the young plant may have a store of food to set it well on the way of life. Then, it incloses the store of food in a tough rind to protect it from enemies; and as if this were not enough, it again incloses this in a spiny covering, to warn off all depredators. The walnut secretes valuable starch and oil in its tissues, folds and refolds those tissues on such a plan that they shall successively minister supplies to the young plant, seals them up in a hard receptacle, and wraps that receptacle in a case so tough and bitter that few enemies will persist in piercing it before it is buried deep beneath the fallen leaves. If rodent enemies are not so very truculent, the shell is not so very hard, but if eager and hardy ones abound in the surroundings, then the shell is strengthened to resist them; and for this reason I suspect that the habits of the rodents of the New World are more truculent than those of the Old, for the shell of our *Juglans* is far more capable of resistance than that of Jove's nut in the eastern climes. So it is with each nut. A glance at a nut from any portion of the globe will afford an indication of the amount of danger that surrounds the parent species, for it will disclose the means taken to prepare for the struggle for existence. Within every unit of life there is something ever at work at the process of adaptation, and neither physics nor metaphysics has yet formulated an expression that will adequately indicate the method, the power, and the limitations of its operations. There still lie vast fields of fascinating knowledge beyond the Known.

SOME COMMONLY MISUNDERSTOOD BIRDS

By LYNN TEW SPRAGUE

STUDENTS who undertake a special line of inquiry are always surprised to find how much they have to unlearn. What that great word artist, Stevenson, called "the bear-hug of custom," extends to beliefs no less than to actions, and the woeful lack of discrimination which Tacitus lamented is probably as much a source of error now as in the days of that most discriminating historian. It certainly extends to the realm of ornithology, and for many reasons, not a few of which are obvious. The earliest students of our bird life had many difficulties to contend with, and mistakes and confusions were to be expected. Thus it happened that in not a few instances really good and worthy birds got bad names which they do not deserve and which hang to them with all the tenacity of popular superstition. A

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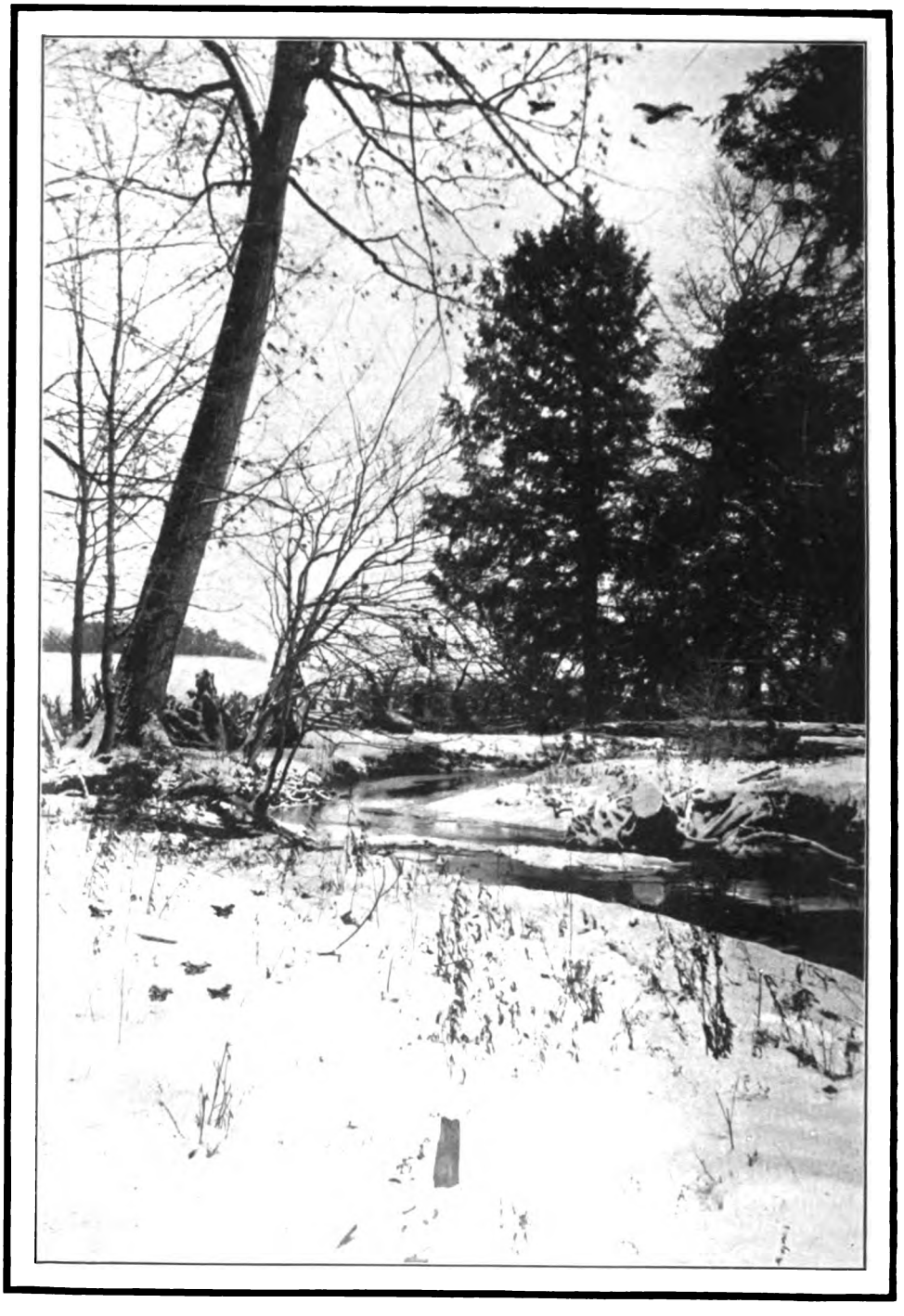

"When all the ground and even the weed tops are snowed under."

Photo. by R. Lewis.

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things considered, perhaps Audubon possessed the greatest genius for observation and delineation of any bird student who ever lived. No single man has done such valuable work in his chosen field; but Audubon was not a trained scientific ornithologist, and even he made mistakes. When we remember that the same species of birds often have very different habits in different parts of the country, and that there is in some instances not only a variety of names attached to the same species in different localities, but even an interchange of designations between two or three different species, the wonder is that popular impressions are as correct as they are. One curious source of error is the fact that English bird books and articles are sometimes read without a thought of their not applying to our land, and a lamentable instance of this occurred in my experience last year. A young lad went with me on a fishing excursion, and as we were tramping over a long hill that was mantled in shrubbery we heard the black billed cuckoo's low-toned, strangely diffused call. I named the bird and told him how plentiful they were in that immediate locality, and then the conversation turned back to yellow bass. A few days later my young friend read in an English book of the depredations and knavish impositions of the cuckoo. He grew irate, looked up a stuffed specimen in the school museum that he might know his quarry by sight as well as sound, and then he went gunning for cuckoos on that hillside. Next day he brought me five beautiful light brown birds with green lights shimmering in their coats, and all summer long he did penance for his unintentional sin by hunting cow-birds. I once knew a gentleman who, with unexcusable ignorance, shot song sparrows and vesper birds about his country home all one summer because he supposed them of the same species as the pestiferous European sparrow which he had observed tearing to pieces the nest of a robin in the shade trees in front of his farmhouse. We can all remember how disappointed we were to find that all the charming old rhymes and tales of robin redbreast and the lark's song were not inspired by our harbinger of the morning and the winsome flutist of our upland fields. But worthy as these of our birds are, the eulogies no more belong to them than Thoreau's matchless encomium of the wood thrush belongs to the song thrush of the British Isles.

Everyone knows that our gleesome minstrel of the northern meadow who fills the June air with bursting bubbles of tinkling melody and is called bobolink, changes his name and dress and goes south to be slain and eaten as the reed bird, and the practice is so old and appeals so strongly to man's most commanding organ, that we must try to become reconciled to a flaming wickedness. But we do rebel when we see our familiar friends, the robins, offered for sale as game in the South, and we are ready to weep when we see wood thrushes—divine psalmists in the North—killed as legitimate quarry on the southern gulf coast, even though they be shy and silent there, and, ludicrous to say, in some localities known as swamp quail. It is really surprising to find what general ignorance of birds there is among intelligent people. Everybody knows the rascally English sparrow, the vagabond crow, the neighborly robin, the gregarious blackbird, the military oriole; but it is a melancholy fact that the vast majority of people are unable to identify more than a half dozen of the more abundant species that nest and sing in any locality. With such general ignorance it is not surprising that errors and even rank superstitions regarding certain species sometimes prevail. Because of his beautiful coat the bluejay is generally much admired, and in one locality in Indiana I found the country people regarded him as the protector of smaller species and believed him a wonderful night singer. Perhaps because of his frequent unmusical quack, the catbird has a bad name in many districts, and is thought to be a murderous enemy to the very small birds. Yet there is not a greater knave among birds, or a more unmusical disturber of the woodland quiet, than the bluejay, and no finer fellow and few better singers than the catbird are to be met with on bosky highways.

A very frequent source of error is what I may call newspaper ornithology. A person of no scientific knowledge but with plenty of ardor takes a vacation where the birds are abundant and tuneful. He writes straightway a bird article for his paper. His lack of trained observation leads him as much astray as his want of exact sys-

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tematic information; more often than not he calls upon his fancy to embellish his story. His contribution may read very prettily, and be a conglomeration of ludicrous mistakes. As a matter of fact, years of study in divergent localities may be given to a single species, and something be learned with every season. Even many writers of renown are without any proper appreciation of bird individuality. The lower in the scale one goes the more homogeneous all animals are found to be; but in the class birds, there is marked diversity in character among all species. Romanes, the very highest authority as to animal intelligence, tells us that "it is among birds that we first meet with conspicuous advance in the tender feelings of affection and sympathy; those relating to the sexes and the care of progeny are in this class proverbial for their intensity, offering in fact a favorite type for the poet and moralist. The pining of the love bird for its absent mate, and the keen distress of a hen on losing her chickens, furnish abundant evidence of vivid feelings of the kind in question."

The older bird writers are especially at fault in their proneness to generalize, and even to-day a knowledge of the principles of evolution is the great desideratum of many of the best known writers of bird essays. Perhaps the greatest service that Mr. Thompson Seton has done by his delightful, if somewhat idealistic, books is to make us feel the real personality and individuality of his non-talking characters, to make us feel that they are veritably related to ourselves.

Few general readers understand precisely what is meant by winter birds. Bird students are not always intelligible to the general public with their divisions into permanent residents, summer residents, winter visitants, transient summer visitants, etc. By the permanent resident species of a locality, they mean species that nest in that locality, and some individuals of which remain the winter through. Almost all the individuals of almost all of the so-called resident species, as a matter of fact, migrate and winter in the South, and so, too, not a few of the so-called winter visitants often nest far south of their usual breeding districts. Thus one might write a long list of winter 's that would be perfectly intelligible to bird students, and rather misleading to the general reader.

A more vital question than that of temperature with these winter birds in the North is that of food. Few who have made no study of birds understand how curious is their physiological economy. When all the ground and even the weed tops are snowed under, starvation stares many birds in the face, and then the most timid will venture into the sheds of farmhouses or into barns in search of crumbs and seeds. Not a few become so weak and low in vitality from lack of nourishment that they do freeze to death. But it is a solace to those who have noticed birds on bitter winter days, to know that few creatures are better organized to brave the cold, if only food enough can be obtained. And enough for the average bird means not a little. A bird may be arrayed not less beautifully than the lilies of the fields without toil or worry, but food is a different and ofttimes a most anxious matter. Most winged life eats enormously, and all the waking hours are meal times. Someone has estimated that a robin could devour three hundred earthworms between morning song and roosting time, and that a pair of grosbeaks could easily swallow a quart of bugs of various kinds while summer daylight lasts. However conjectural such estimates may be, anyone who has watched parent birds feed their nestlings will know that bird appetites are as inordinate as unsqueamish. Between the bird's hunger and that of the chicks, scarcely time is found to voice the natural joy and pride of parents. When we consider the high heart pressure, the rapid circulation and respiration of birds and the warmth of feather coats, we know that, sufficient food being found to supply warmth and reinforce vitality, birds need have little fear of frosts. The scattered seeds from weeds, insect eggs and larva under the bark of trees, the grubs in decayed logs, frozen berries, fruits and buds, and many chance scattered morsels are found, but in spite of an appetite not overfastidious if enormous, the winter birds' stomachs know many a disappointed hour. Even the brave and indiscreet robin that is tempted North all too early, is often betrayed by the fickle spring he sought to herald. His early song floats one day on a warm south wind, but the next a flurry

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of winter drives him to the evergreens, and he is forced to dine on the hard frozen fruit of the mountain ash tree or thornapple bush.

Of many of these so-called winter birds, especially those that sing, I have had the privilege of speaking before in this magazine, but certain larger winter birds of wide distribution, though generally known, are commonly misunderstood, and of these I would be allowed a few words. They are birds of prey most of them, and it happens that those of worst character have somehow come to be looked upon with most favor.

Now, of all native American birds, the crow is probably the one which is common to most localities in the United States, both in winter and in summer. Nevertheless, crows are migratory birds—probably all birds are to some extent. The sly, tricksy and sagacious old blackleg, who is all black but legs and bill, thrives on persecution. Since the advent of the white man into his land, there has been a state of war in which he has certainly more than held his own. No bird more wary or resourceful or strategic.

Not only does he know a gun when he sees it, but it is firmly asserted by many who have sought his life that his keen eye will accurately estimate the range of all firearms. He has few well-wishers, and although recent scientific investigation goes to show that on the whole he is rather a benefit than a hurt to agriculture, it is difficult to persuade the farmer, who actually sees him pulling up the corn, to love him. But even those who speak with authority about the crow's claim to favor are not altogether in agreement. Thus Dr. Abbott declares "the crow is a useful bird, in spite of the mischief of which it is guilty, and that is the sum and substance of the whole matter." While Mabel Osgood Wright, admitting that from the standpoint of the agricultural economist "the crow seems to be pronounced not guilty," because of the cut worms and destructive bugs and insects which he devours, yet says he is "a coward with a hoarse voice and disagreeable manners, added to a most offensive, crouching personality, hiding a world of cheap craft." But Mr. Chapman says the bird laughs at man's attempt to entrap him. "As for fear, I doubt if he knows what it means." We may all form our private opinion of a bird so abundant and widely distributed, and though we may not be disposed to make a hero of him, as one literary naturalist has done, we cannot deny him high cleverness along with his swaggering insolence. The crow asks no favors, will take care of himself, and cares little what we decide; and I am much his friend as against certain other birds which our laws protect. In spite of being man's hereditary enemy the shifty-winged sinner is ofttimes tamed and domesticated, and makes one of the most intelligent and amusing pets, though, like others of his color, he is given to thieving and practical jokes for which he seems to have a diabolically acute sense. Such a recreant rascal is he that when tamed he may be used as a decoy for his own kind, alluring them to their death. He has a remarkable memory. Wilson tells us of a pet crow which escaped and took to wild life and joined a flock of fellow vagabonds. Nearly a year later when out marauding he spied his quondam master in a field, and flew down and perched upon his shoulder long enough to exchange the compliments of the day, and then, in spite of being invited to stay, flew off and joined his fellow thieves again. On less trustworthy authority, I have the story of an invalid farmer's pet crow that used to fly to the country doctor whenever his master had a bad turn. I myself once made the acquaintance of a tame crow belonging to the proprietor of a livery stable in a small Michigan village, and it was the habit of the bird to fly out to meet returning rigs, when he would ride home on the horse's back. That the crow does make himself an unmitigated nuisance in more ways than one I was thoroughly persuaded last May. A little jungle of bushes and young trees through which a brook sings was near a farmhouse where I was staying, and it seemed an admirable place for bird study. But every time I entered this likely domain a crow would hover over it, lighting ofttimes on a tip of nearby trees and always cawing a torrent of discordant crow abuse which alarmed the songbirds and not a little tried my nerves. Twice I took a rifle with me, but on these occasions the black scamp contented himself with continuous cawing high above the edge of the thicket, continually screaming crow jeers.

The bluejay, as before stated, is another

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questionable bird, but he is a handsome, showy, dashing fellow, not lacking in courage. Though he has many admirers, he is probably one of the most unconscionable rascals among birds. He should find little favor with bird-lovers since he is much given to feeding on eggs and fledglings of songbirds. It is true that he is in a measure insectivorous, but that is probably only when he finds no nest of small birds to furnish him with a repast. With his jaunty manner and handsome crest, his beautiful coat of blue and white and black, he adds a dash of life and color to the winter landscape; but his sins altogether outweigh his virtues. He is as beautiful, if less sprightly, when dead and stuffed; and, like the Indian, it is only when the life is out of him that you may be sure that he is good. There is another bird to be seen in winter, about which there is a lack of consonance among authorities, and that is the northern shrike. That this bird is a cannibal of the most savage and insatiable kind should be known to all. Toward the close of last March I discovered one on the edge of a thicket, and during the half hour I had him most of the time in view through my opera glass saw him kill a junco and a song sparrow. The junco he pounced upon from a higher perch and carried away into the woods. But a few minutes later the shrike appeared, and this time stole warily through the bushes to where three or four sparrows were singing. One of these he caught after an exciting wing chase, and then, instead of devouring it or impaling it on a thorn, dropped it and flew away. The needless atrocious murder of one of these brave little lovable creatures of early spring aroused my lasting hatred. Dr. Coues declares the shrike "an ogre whose victims are so many more than he can eat that he actually keeps a private graveyard for the balance." Yet Ernest Thompson and Miss Wright think him worthy of protection because he sometimes eats mice, grasshoppers, and English sparrows. The advantage of sparing a single bird that destroys hundreds of other birds that are of decided advantage to agriculture because the murderer's diet is sometimes partly a benefit to farmers, is based upon a system of economy not comprehensible to ordinary minds. There are four winter birds that I feel like recommending to sportsmen as targets—the English sparrow, the bluejay, the sharp-shinned hawk, and the shrike or butcher-bird. But of these the jay and the shrike seem to be protected by the laws of New York and certain other States.

There are two other kinds of birds which we are taught from childhood to condemn, but which scientific investigators have proven worthy for the most part of protection—the hawks and the owls. Of the winter hawks, Dr. Fisher has proven, by systematic examination of the contents of the stomachs, all except the sharp-shinned to be birds worthy of favor. The owls, too, are of real service to the farmer. There is this to be said for both of these last-named birds of prey—if they do destroy useful small birds they also destroy certain rodents that destroy eggs and fledglings. If hawks or owls sometimes eat a warbler, an oriole or a vireo, they also sometimes eat a squirrel or other small quadruped, which if spared might destroy many of these smaller birds. So here is a complicated problem in economics, the solution of which we may be content to leave to sentiment. But no such case can be made out for the shrike or the blue jay. If enthusiasm sometimes carries certain bird-lovers beyond the pale of practical sense in matters of bird protection, that fact may in its turn find justification in the insatiable love of destruction which almost universally fires the heart of the boy (and too often even the man) with a gun, and with a disposition to kill.

Many well-known birds, like the robin, song sparrow and chickadee, seem to go no farther south than necessary; while others, like the bobolink, barn swallow, and vireo, winter in the tropics. But when the breeding season is over, birds moult, and the new coat in many species is a sombre one. The song birds, too, lose their joyous voices; it is a changed bird that we see in the naked winter bushes. If we lament their scarcity then, we rejoice the more when they return in the spring to ornament woods and fields with happy life and flashing color and heartsome song.

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THE SPORTSMAN'S VIEW-POINT
BY CASPAR WHITNEY

"The best test of the worth of any sport should be the demand that sport makes upon those qualities of mind and body, which in their sum we call manliness."—THEODORE ROOSEVELT.

A Law to Create Game Preserves in Forest Reserves

No question of deeper significance is before the American people than that touching the conservation of our forests and of our wild animal and bird life. There was a time when preservation of game was viewed by the average newspaper reader as a pet theory of sportsmen. A great many people once looked upon conservation of the large American mammals as particular legislative dispensation for the especial pleasure of the men who hunted. But none save the ignorant believe so in our day of enlightenment on these subjects. The splendid work of the national Biological and Forestry departments at Washington has gone a long way to show and to convince the people that this is not a matter in which only sportsmen are interested, but one which deeply concerns Americans of all classes, and especially those directly interested in the agricultural returns of the country.

It has been shown repeatedly—so repeatedly that there is no real reason for detail here—how the game, both large and small, of America is disappearing; at the rate it was going, only a few years were needed to witness the disappearance of at least several species of American fauna; even as the bison disappeared. This is an old story to the majority of my readers; and I am only referring to it now to emphasize the necessities of the situation for the information of those who happen not to be informed.

Nothing relating to the preservation of both game and forest has come before Congress with half the force or half the importance as the present effort making to create game preserves in the present forest reserves. For a year the Boone & Crockett Club has been diligently gathering data to offer at Washington in support of such a bill as the Honorable John F. Lacey has recently fathered; with his strength and influence added to that of the Club, there seems good reason for feeling hopeful of a Federal law which will materially extend the range, the influence, and the value of our forest reserves by making them also game refuges. I am not putting it too strongly, I feel sure, when I say that Mr. Lacey, in carrying through into law what is known as the Lacey Bill, has done more for the practical protection of feathered game in America than any single man in the country. It is eminently fitting, therefore, that he should now put forth a bill for the preservation of our bigger game. The bill introduced by Mr. Lacey into the House of Representatives on the 29th day of January last is one

"To transfer certain forest reserves to the control of the Department of Agriculture, to authorize game and fish protection in forest reserves and for other purposes." This bill provides "that the President is authorized to set apart by Executive order such forest reserves or parts thereof as he may deem proper for game and fish preserves, and in such preserves the Department of the Interior or the Department of Agriculture in control of such forest reserve shall make all rules and regulations in the discretion of the Secretary of such Department as may be deemed by him necessary for the protection of the animals, birds, and fish therein, and may designate the times and manner in which game and fish may be taken or killed therein." The bill further provides "that any forest officer, special agent, ranger, or custodian of any forest reserve may, without process in hand, arrest any person found violating or attempting to violate" the state or territorial forestry or game laws or regulations. Further it provides "that no forest reserve or part thereof shall be so set apart as a game and fish preserve within any state unless the Governor of such State shall, in writing, request the President to issue such order."

It is a convincingly fair provision for that considerable number of people who are still unpersuaded of the merit and of the need, indeed, of forestry and game

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preservation. It assures them of certain State discretionary power that ought to allay all fear of the friends of the cause "running things." On the other hand it suggests to the friends of protection that it is not enough to simply meet and pass resolutions: they must work hard, and among the people.

President Roosevelt's Wise and Timely Advice

I was very much impressed by what President Roosevelt said on this subject the other night at the Boone & Crockett annual dinner, held in Washington. In substance he said that it was not enough for organizations and clubs and the friends of game protection and of forestry preservation generally, to merely meet and pass excellent resolutions, or to consider they were doing the limit of their best work by sending delegations to Washington to approach the heads of the various departments. The real work, the President emphasized, is done in the States among the people. The Senators and the Representatives reflect the opinion of their respective constituents. If the consensus of home opinion is against game preservation, the Senator or the Representative must respect it; so, too, if the home opinion favors forestry and game preservation, the Senator or Representative at Washington dare not ignore it. The President spoke very strongly on the need of all friends of these great questions *working among the people;* and I am taking this opportunity of making public the sentiment he expressed to his fellow club men, because it is advice sorely needed by a great majority of the well-intentioned men who, in one way and another, are seeking to help on the work for adequate protection. There are a great many leagues and clubs and associations in America devoted to the protection of game and incidentally to the preservation of forests. All are sincere in their protestations and earnest in their endeavors. But a very small percentage of them are doing effective work, and not more than one or two are accomplishing as much as they might. Increase of membership, individual exploitation through the press, vanity, and a general trumpeting of achievements occupy too much the [illegible] of a majority of the associa- [illegible] many other instances impotency of effort is, too, I am sure, as much to be attributed to ignorance of how to go to work as to any other cause.

Therefore, I repeat the words of the President—make your missionary efforts among the people; seek to influence for the good the public opinion of your State; you must work to create a proper understanding among your fellow townsmen of what this great question implies. This is the surest means of attaining proper legislation; it is a direct path to the protection of game and preservation of our forests.

Lest the New York Yacht Club Forget

There appears to be the usual amount of speculation this year, as last, concerning the prospective *America's* Cup challenger. Little doubt exists that Sir Thomas Lipton will challenge again, although at present writing nothing official has been received. It is also practically certain that the new boat will be called *Shamrock III.* This much we know, but nothing more. A little while ago a rumor came out of England that Sir Thomas was to be elected to the Royal Yacht Squadron. If Sir Thomas is pleased with the prospect we congratulate him, because Lipton is the kind of sportsman whom we always wish to get his heart's desire (the *America's* Cup of course excepted); but we hope Sir Thomas keeps his yachting history sufficiently fresh in mind to always be aware of the impropriety of challenging for the *America's* Cup in the name of the Royal Yacht Squadron, should he be elected to that Club. Otherwise the New York Yacht Club would find itself in the embarrassing position of having to rebuke a man who is too good a sportsman to be put in such a position.

The New York Yacht Club could not with self-respect accept a challenge from the Royal Yacht Squadron. It is not to be forgotten that Lord Dunraven and *Valkyrie III.* came over here representing the Royal Yacht Squadron, of which the then Prince of Wales was Commodore. After most unsportsmanly conduct during the races, Dunraven made an atrocious charge of fraud against the American yacht and repeated it in England. The New York Yacht Club forthwith instituted a thorough investigation of Dunraven's accusations, and as he failed ut-

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terly to substantiate his charges, the New York Yacht Club expelled Dunraven from its membership and forwarded to the Royal Yacht Squadron a complete statement of the case. The Royal Yacht Squadron took literally no action in the matter, and has not to this day apologized for the outrageous conduct of its official representative.

I know of no parallel to this case in sporting history; if the New York Yacht Club should ever accept a challenge from the Royal Yacht Squadron it would forfeit, and justly so, the respect of every sportsman in America.

Not Made in Germany

However the interest may fluctuate so far as international yachting is concerned, at least it looks as if sport will not be lacking among the schooners on either side the Atlantic; and this is the class of yachting that too long has been neglected. On the other side especially is there indication of a very lively season, and we may, without unbecoming pride, derive some satisfaction from Germany's yachting outlook; for the best of their racing two-stickers are of American build. When the new *Meteor* squares away for the starting line, there will be four American-built boats in the racing at Kiel—the other three being *Iduna*, formerly *Yampa*, *Lasca*, and the *Nord-West*, formerly *Alcœa*. These yachts will also undoubtedly race in the Solent, and it will be interesting to see how they fare against the creations of the English designer, Soper. Here is a designer apparently without the reputation of Watson and of Fife—but whose boats win.

On this side of the ocean the salvation of our sport will be the one-design and smaller classes generally; and, after all, the small boats are the ones which provide the real sport of yachting. So at all events the racing-machine craze has done some good, for it is quite responsible for the activity in these small classes. What with the repeated changing of measurement rules, resulting from the struggle among designers to beat them, the life of a racing boat has been scarcely longer than one season; hence the development of "mosquito" fleets, because the original cost is comparatively small.

One-design classes have their advantage—they give good even sport and are magnificent schools for the making of Corinthian sailormen. So far, however, as influence on models is concerned, there is less cause for rejoicing over the popularity of these classes. It would be a pity if they absorbed too much attention, for there is absent entirely that test of varying lines, which open classes provide, and that signify the growth of yacht-designing skill. What yachting needs most is a measurement rule common to all the clubs, and one to harmonize racing interests. Some question has been raised as to the efficacy of the recently suggested rules, but the next number of OUTING will contain very full discussions of the subject by Mr. John Hyslop and other high authorities.

And there should be also international rule harmony. At present the American and the English rules so differ that the boats of one country are handicapped in the waters of the other. That this should be so is as unnecessary and as unreasonable as that there should be half a dozen different interpretations of the definition of an amateur. Anglo-Saxon sport stands in need of an international congress attended by delegates from the several branches of sport.

Brutalizing a Good Game

It is a pity the good name of so worthy a game as hockey should be sullied by the vicious play of a few clubs, among which the team representing the Crescent Athletic Club seems to be the most frequent offender. Hockey is a really grand game, and is fast making its way in this country. There is the Intercollegiate League, as well as an association in nearly every city with a rink, such as New York, Boston, Philadelphia, Pittsburg, Chicago, Minneapolis, St. Paul, not to mention the very general play throughout New England and the Middle and Northwestern states where open-air rinks are possible. In Canada, hockey is the one game of the winter, from Winnipeg in the extreme west to Quebec in the extreme east, all along the line.

Somehow New York hockey affairs have got into the hands of men who seem to lack sense of the game's splendid qualities, and the necessity of keeping the play free from hoodlumism. Scarcely a match is decided around New York, in which a

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club team participates, that is not filled with muckerish work. Tripping indeed appears to be regarded by most of the club teams, and by the majority of the officials, as an indication of skill rather than the plain violation of rule that it is. I was impressed by this fact the other night in watching a game between teams representing Yale and the Crescent Athletic Club respectively. During the first part of the match the play was clean, and Yale showed such good team work as to keep the Crescents on the defensive. Then the Crescent team began their usual rough and —excuse the word—dirty work. At this kind of play the Yale men were outclassed. Repeatedly I saw Crescent men very cleverly trip Yale men and put them out of the play. The referee being a Crescent Club man, his eyes were not so observing as mine.

I cannot understand why this muckerish element is tolerated. The salvation of hockey, as of all other amateur games, is in intercollegiate association, and it would seem advisable for the Intercollegiate League to separate itself entirely from these athletic club teams.

In addition to the charge of muckerism which may be brought against the Crescent Athletic Club hockey team, is the further one of discourtesy to the Canadian Association, in playing a man who was disqualified by the Canadian Association. The Amateur Hockey League, which is supposed to care for the rules and the play of these New York clubs, is also guilty of discourtesy by permitting the Crescent team to use this man unchallenged.

The Canadians have proved again this winter that they are still too good for us at hockey. They have also showed that they play a very much cleaner game than the club teams around New York. I wish to except the St. Nicholas team from the general charge of muckerism; its work is usually clean, but it is the only club team I have seen this winter of which as much can be said.

Broader Association for Skating Interests

To judge by the entries for the annual championships held under the auspices of the National Amateur Skating Association of America, interest in speed and figure-skating does not develop. Every year a mere handful of entries, drawn almost entirely from New York and Eastern Canada, compete for national honors, and rarely indeed do we find an entry from New England or from any part of the Middle West; and New England is the great skating centre of the United States. Under the circumstances, it is inconsistent to call these championships "national." It is a genuine regret that more interest is not evinced in these annual events, because, except for an occasional individual of unusual skill, the average of America is quite below that of most other countries where skating obtains to any substantial extent.

I am inclined to put some of the blame for this halting interest upon the present Association, which stands in need of much broadening. It always has been something of a limited liability company run by two or three men around New York; and while, to be sure, these two or three were experienced and worthy men, yet it is impossible for an Association to attempt national jurisdiction or to hope for national interest if it is managed entirely from one locality; it must become provincial. Not half the interest is given to ice sports in America that should be; and my sole thought in writing this paragraph is that the Association call a meeting of delegates from the different sections where ice sports obtain, and elect a board of managers really representative; thus not only broadening its particular field of endeavor, but doing something worth while for American skating.

Although none of the Canadian entries won a single event in the speed championships held at Verona Lake, New Jersey, last month, credit for only the one and three miles (won by Morris Wood, of New Jersey) can be really taken by America; the remaining three events of the programme—the half, five, and ten miles—were taken by Peter Sinnirud, who, though representing the Verona (New Jersey) Club, is a Swede, and, while a very fast one, does not represent the class of skater whom, if I mistake not, the Association was organized to foster.

Southern Intercollegiate Football

Because of unusual demands on my time I was unable to give the usual personal attention to a ranking of Southern football teams last season, and

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some strange, not to say amusing, errors were made in the placing of the elevens in the January issue. It is a convincing lesson of the inadvisability of depending on other and superficial judgment. Tennessee was placed first among Southern teams through the mistaken idea that the Georgetown it defeated was the Washington Georgetown instead of the Kentucky Georgetown. It is, of course, too late to go into detailed comment, but purely as a matter of record I am publishing a rearrangement more nearly in accord with the respective merits of the elevens—Virginia, Gallaudet, Georgetown, St. Johns, Vanderbilt, Sewanee, North Carolina, Nashville. The strongest All-Southern team for 1901 would be:

Carpenter, V. P. I., full back.
Coleman, Va., and Simpkins, Sewanee, halves.
Tutweiler, Va., quarter-back.
Ware, V. P. I., and Erickson, Gallaudet, ends.
McCormack, V. P. I., and Bennett, Va., tackles.
Abbot, V. P. I., and Harris, Va., guards.
Givens, Georgetown, centre.

There is very little to choose among the first four or five Southern universities, and especially among Virginia, Gallaudet, and Georgetown, which are so even as to make choice of first purely a matter of personal prejudice. It seems to me that Virginia has played the most consistently good game of the lot. As to the individuals, there are no doubt others on more southerly teams who perhaps would show equally as good as some chosen had they the opportunity of games with the stronger elevens. In the Southern Intercollegiate Association, Vanderbilt and Sewanee were the strongest two, with Nashville a close third.

Graduate Coaching on the Pacific Coast

Out of the West come echoes of the last football season, which, although late, are yet sufficiently interesting to be recorded. Of the Michigan-Stanford game at Pasadena, which ended the California season on New Year's Day, we have already heard the result; but, according to recent advices, the game was more closely contested than the overwhelming score suggests—final victory being accounted for as much because of Michigan's superior physical condition as for its superior football. Twice in the first half the Californians were able to try for place-kicks, and twice, within a foot of their own goal, they held the Michigan men for downs. In fact, for the first twenty-five minutes of play it was anybody's game. Michigan was in superb physical condition, and went through the two periods without losing a man, while Stanford called out almost every substitute on the field. Such outcome, however, is surprising to on one acquainted with the conditions at this California university, for with abundance of really first-class material to draw from the discipline and the training at Stanford are poor.

The Stanford-California game was interesting this year as a trial of the graduate coach system, which now forms a part of their intercollegiate agreement. So far as the game itself is concerned, the outcome was encouraging. California won by better team work than has been seen on the Pacific Coast since '97, and the result was as much of a surprise to California as to Stanford. Both at Berkeley and at Palo Alto the game had been regarded as an almost "sure thing" for Stanford; her men were heavier, and, with few exceptions, individually better. The team had shown to better advantage in the practice against the athletic clubs. Nevertheless, California outplayed her in every detail of the game—even in line bucking, where the Stanford heavyweights with Slaker, the ex-Chicago player, at their back, were supposed to be strongest. Twelve to nothing, rather than two to nothing—the actual score—would perhaps indicate better the respective playing merits of the two teams.

But in the matter of intercollegiate courtesy and sportsmanlike feeling, the graduate coach system appears not to be particularly helpful. In a newspaper interview after the game, Head Coach Fickert, of Stanford, gently insinuated that the California team knew the Stanford system of signals; and the retort courteous was given by Head Coach Simpson, of California, referring to the Stanford students at large, in a jollification after the game, as "curs" and "lobsters"!

Outside the two big universites, the Reliance Club, of Oakland; the Olympics, of San Francisco, and the Multonomah, of Portland, put fairly good teams in the field. The best of the three was probably

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the Olympic team, composed mostly of ex-college men, with Cadwalader, the former Yale centre, as captain. Of the smaller colleges of the Pacific Coast, Nevada sent out a very good team, considering the smallness of the college.

The games played by the California universities on their tours are, excepting the Michigan game, not worth chronicling. As the teams make no pretence of keeping up practice or training after their "big game" in November, these post-season matches are to be regarded as incidental to junketing trips, and should be discouraged as neither sportsmanlike nor in accordance with the dignity of university sport, or of the colleges concerned.

From the Pacific Northwest report as to quality of athletic work is excellent, but disappointing as to ethics. With imported Eastern coaches, the general quality of football, for example, is advancing, but last season saw a rather backward tendency in the matter of amateur status.

It was a disastrous season for the University of Washington morally and financially; a lesson which, no doubt, will serve to keep future teams free from professionalism. The Oregon University was another offender, having played its coach. The athletics of the Idaho University need thorough overhauling from an ethical point of view. The Whitman College, of Walla Walla, Washington, made an enviable reputation for wholesomeness both on and off the field.

A Change of Heart in the Missouri River Section

From the Missouri River district come very encouraging reports. The spirit shown in the Missouri-Kansas game at Kansas City, which this year was won by Missouri, revealed a sportsmanly bearing little short of revolution in the sentiment usual to these annual contests. It has been a great struggle to clean up the sport in this section, and Kansas, Nebraska, Missouri State Universities, and the Washington University of St. Louis have united in sincere effort. They have had some difficult institutions to handle, especially the American School of Osteopathy and the Warrensburg Normal, both of which have grossly offended, and, along with the Kansas City Medical School, been boycotted for future games.

Their task has been a most difficult one, and these universities therefore deserve the more credit; they should be indorsed and vigorously supported by the Middle Western Association of Universities.

All in all the college sport situation throughout the country is very satisfactory. It needs now only that the Southern Intercollegiate Association clear up some of its confusing rules and make one or two others, obviously necessary by the experience of the last season.

One of the most pleasing bits of reading to have come under my eyes for some time is an editorial in the Dartmouth College paper of January 31 commending the action of its Athletic Council in declaring ineligible two candidates for the college baseball nine who played on professional teams in the past summer. It is not so much that the editorial should support the college Athletic Council, but it is the true ring of it, which indicates the growing appreciation among undergraduates that college athletics are, as President Eliot says, the mere "by-play," and to be viewed simply and purely as sport for sport's sake.

Racquet Form Improved

The interest aroused by the inter-city matches last month among teams of the New York, Boston, and Philadelphia racquet clubs, indicate this fine game to be making way at a very much increased rate on the Atlantic Coast. It is making its way, too, though more slowly, out in Chicago, where match play of a necessity is confined to the members of one club—the Chicago Athletic Association.

Perhaps the most noticeable advance of play is to be found in Philadelphia, where the racquet men appear to have taken such a jump in skill as did the polo men a couple of years ago. It is something of a feather in Philadelphia's cap to have pulled off the team matches against both Boston and New York, especially against New York, where the game is older, and first-class performers more numerous. With no desire to belittle Philadelphia's victory, I must, however, say that the success of its team, Messrs. George Brooke and Hugh D. Scott, over the New York pair, Messrs. Clarence Mackay and Morton Paton, in the third and final match of the series, was made possible largely by the obviously off-form work of Mr. Paton, who, usually steady, was on

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this occasion surprisingly uncertain on his returns. With Boston, Philadelphia had an easier task, and won strictly on the merit of its work.

For the championship events this year there is prospect of an increased number of entries, and closer and more interesting contests than usual. Of the New York group of players half a dozen have pre-eminent claims to distinction. Among these Clarence Mackay seems most likely to take precedence, and is sure to show an increasingly clever game. Thus far his play shows a fore-hand about as good as last year, a back-hand stroke considerably improved, and service with added length and speed. He appears, too, to be physically stronger. He plays the corners very persistently, with consummate skill, it is true, yet I question if he does not use them a little too much.

'Tis a pity W. B. Dinsmore, Jr., is so uncertain a player, for his best is about as good as one sees. He seems a little stronger on his back-hand this year, and his service has its usual terrific speed.

Milton S. Barger has bettered his game all of five aces over what it was last year, and is developing into one of the strongest all-round players on the list. His service, of great speed, is deadly, and, although his forehand is somewhat cramped, his back-hand is straight and has materially improved.

Payne Whitney has also improved very much over his last year's form, especially on the back-hand stroke, which formerly lacked accuracy; he is a notable getter and placer, with a fast service showing plenty of cut.

Ford Huntington is another one of the New York first class who is showing steady improvement. His game this spring is four aces better than it was last season, improvement being especially apparent is in his back-hand and in general activity about the court. His fore-hand always has been very safe; somehow he does not improve his service, which is still halting.

Morton Paton is the veteran of the first-class and, as a rule, plays in his best form, which is very good indeed. Safe returns and good judgment help his legs very considerably; and he is usually fit to last out a long rubber.

Among the comparative beginners who look likely to reach the first class is Lawrence Waterbury, the polo player, than whom few men have made greater progress in an equal period of practice. As might be supposed, he is very active about the court, so much so as to threaten Payne Whitney's ranking as the premier getter of his club. In addition he has developed a very strong fore and back-hand and a severe service; if he sticks to the game, Mr. Waterbury will see his name on those championship record tablets in the New York Racquet Club one day soon.

Philadelphia's group is less experienced, but has improved with equal rapidity. This is particularly true of George Brooke, whose judgment and speed, once familiar on the football field, are shown to good advantage in the racquet court. He has a very good service, uses excellent judgment, and both fore-hand and back-hand strokes are strong.

Hugh Scott has also improved his dashing game, but although he is a good all-round man of much endurance, his lack of a strong service weakens his game materially, despite the severity of his fore-hand stroke.

Edgar Scott also is playing a stronger game, especially on the volley and in his service, which is much faster. He employs a drop stroke which has considerable accuracy, but continues faulty on his back-hand.

No player in any court puts more power into his strokes, or has greater pace than Barclay Warburton, who has made very rapid strides since 1901. His back-hand lacks finish, but his service and fore-hand are both very good, and his judgment in play is above criticism.

Of the Boston men, Quincy A. Shaw, Hollis Hunnewell, Phillip Stockton, and Austin Potter are most prominent, but of these only Mr. Shaw may be regarded as a likely candidate for national championship honors. Except that the Boston man's periods of steady play are of longer duration, Mr. Shaw and Mr. Dinsmore (New York) are quite alike in temperament and character of game. Both are brilliant and uncertain by turn, and when at his best Mr. Shaw is a remarkably brilliant player—the most brilliant this country has developed—but no one can reckon, when he enters upon match play, how the periods will alternate. If, how-

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ever, first honors are not an invariable certainty for him, at least he must always be regarded as the most formidable rival for such distinction any other American candidate will encounter.

Deeper, Wider Fencing Interest

Sportsmen view with great satisfaction the manifestly increasing interest in fencing among both men and women this winter throughout the East. The plan of an inter-collegiate fencing association is especially worthy of attention at Harvard, Yale, Columbia, Cornell, Annapolis, and Pennsylvania—the colleges included in the scope of the scheme. The art has made material advance at all these institutions in recent years, for which credit is due the Columbia fencers, who, in perpetuating the traditions left by its son and expert swordsman, Mr. W. T. Lawson, have kept interest alive through seeking annual meetings between teams from Harvard and the Naval Academy. Gratitude is due also to the New York Athletic Club, where Messrs. Lawson, O'Connor, and Hammond have proved an inspiriting influence; and to the Fencers' Club, where Messrs. Beckwith, de Kay, Post, Fitzhugh Townsend, and others, have brought new life to a one-time waning interest.

So, while there is as ever the lack of united effort among fencers as a class, and especially among the teachers, yet it is happily true that interest in the art itself is broader and deeper, and the average skill is improving. And there is plenty of room for improvement, for true it is that as yet the average form is bad. But a very few men fence in really good form; the majority have only the idea of touching the adversary, and perform acrobatically in the endeavor. I could not avoid this impression even at the Fencers' Club the other night, when teams from the New York Athletic Club, the League, and the Fencers' Club met for the Club trophy, which the Fencers' team won. Except for two or three, play of the foil was completely lacking.

It was duelling sword work, with the fleuret; a regular hit or miss game.

Among universities, none has shown greater advance than Yale, whose team only the other night defeated one chosen from among the members of the Fencers' Club. Fencing is a gentleman's game and should be encouraged; certainly at all educational institutions.

Sentiment and Fact Concerning Pigeon Shooting

There is much hysteria in the movements which now and again are set going for legislation to prohibit the shooting of pigeons from traps; nevertheless, it is a question entitled to deliberate and dispassionate discussion. Personally, I do not care for pigeon-shooting, simply because it is not to my taste to shoot at birds sprung from a trap, and I feel that practically equal tests of marksmanship may be obtained from shooting at clay birds. But I cannot and do not indorse all the charges of cruelty, etc., which are heaped upon those who do shoot pigeons from traps. It is not more cruel to shoot pigeons than it is to shoot any other kind of bird; and the fact that the pigeon is shot from a trap, and is therefore more certain of receiving an instantly fatal wound, decreases rather than increases any possibility of cruelty. Nor can the disappearance of the pigeon be laid at the door of trap-shooting. The truth is that these outbursts against trap-shooting are based almost entirely on sentimental grounds, and as such are deserving of serious consideration. I should be glad to see such sentiment respected; at the same time the charges of cruelty and destruction of the pigeon breed are not founded on fact.

U. S. Golf Association Officials

The ticket which the Nominating Committee of the U. S. Golf Association has put forth for 1902 is in some respects a good one. In view of the criticisms I found it necessary to make during last year, I am reluctant to discuss the *personnel* of the Association's proposed officers for the current year, lest, in unfriendly quarters, my comment be attributed to personal animus, which of course it is not. The individuality of the Association's officials, outside of their influence on the sport for good or ill, has not the smallest interest for me; I discuss the question frankly only so far as it relates to the game, with the well-being of which I am indeed deeply concerned.

The Association in 1901 distinctly retrograded in prestige and in strength; from the selection of a public hotel links for its championship to the feeble excuses for

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dereliction of duty offered through the newspapers by its president, the U. S. G. A. during 1901 was never up to its class of previous years.

Therefore it would have been well to put this year a really strong man at the head of the Association, and the failure of the Nominating Committee to do so is simply another exhibition of that infirmity of forceful purpose of which so much was seen in the past season. Mr. James A. Stillman is the man who should have been nominated for president of the U. S. G. A.; but for his determination to straighten out the tangle into which the Executive Committee had wound the Association over the Travis-Lockwood business, there might still be no real reason why "amateurs" could not earn a very comfortable living as walking billboards for Southern resorts. The two men to have done most for the Association in the way of rule-making and in bracing up its weak officials, are Mr. Stillman and Mr. Charles B. Macdonald. There are several excellent additions to the new official family, none more so than Mr. David R. Forgan, of the Onwentsia Club, Lake Forest, Illinois.

No More Confusion Over Amateur Records

Mr. Harry H. Devereux, President of the Cleveland Matinée Club, is to be congratulated on the triumphant issue of the discussion he has waged with the Trotting Association for upwards of a year. It will be remembered that Mr. Devereux's great trotter, John A. McKerron, having a record to wagon of 2:06¾, was penalized for a performance claimed to be public, but to which ruling Mr. Devereux took exception. There seemed to be a confliction of official opinion, which confused a great many of us as to the real merits of Mr. Devereux's contention. The following rule, recently adopted, clears the situation and earns Mr. Devereux the gratitude of all amateur reinsmen:

> Records cannot be made nor bars incurred in trials of speed where there is no pool-selling, book-making or other public betting on the event, no money competed for, no entrance charged or collected from the competing horses, no admission fe charged to the grand stand or at the gate, or any privileges sold of any kind.
>
> Such performances shall not be considered public races. All rules of these associations, in so far as tney may conflict with this ruling are hereby repealed.

There is also cause for satisfaction in the recommendations voted upon by the committees from the National, American, and Register Associations, which are to be made to the Congress of the National Trotting Association that will be held in New York at about the time this magazine is on the press. These recommendations are toward protecting the public more and the horsemen and horses less, and ought to bring about better sport and better racing for the coming season.

Especially is this true of the recommendation that all the horses in a race which have not won a heat in the first three shall be sent to the stable.

Legalize Amateur Public Boxing

Effort is making in New York State to pass a law permitting public amateur boxing, and if "politics" are kept out, it has a good chance of becoming law. Surely we all hope the sport will be legalized, for it is a shame that a game encouraging such vigorous, manly qualities as does boxing should suffer because a handful of vicious men fastened upon it and bore it down into temporary degradation.

Amateur boxing lost caste in New York because of continuously corrupt and athletically dishonest management. The beginning of the end started ten or twelve years ago when clubs, called amateur, introduced the "long green" (surreptitiously of course) into their prize lists. Under such conditions, any other game would have fallen, too.

If the proposed resolution does, and sportsmen trust it may, become a law in New York, it should carry the provision that the boxing be conducted under such rules as those of the Amateur Athletic Union. These rules are excellent for the amateur game, and through giving the A. A. U. officials a definite responsibility, the Union would be so placed that it could not afford to tolerate any but strictly honest play.

Other Considerations Than Mere Speed in Automobile Manufacture

The last Paris Automobile Show was a peculiarly interesting one to Americans; it indicated that the Frenchman is keeping his finger on the popular automobile pulse, and that American manufacturers must continue to reckon with him in the

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matter of future business. The impressive feature of the show, however, was the recognition on all sides of the fact that speed is not the sole desideratum of an automobile, and that the average owner wants lightness of construction and comfort in riding. American manufacturers realized from the very beginning that the sale of machines given high speed regardless of weight must, necessarily and for all time, be limited; and the Frenchmen are just coming to the same realization. Hence the automobile at the Paris Show was lighter, more comfortable, and simpler than those seen at any previous exhibition. The Germans, taking their models from the best French makers, are improving, but their machines are not yet to be considered in the class with American or French products.

Cast Out Politics From University Sport

The prospect of a renewal of athletic relations between Yale and Pennsylvania and Harvard and Princeton is most pleasing to all friends of college sport. The period of cessation has been much too long for the good of the game, and much longer than there was need. Surely we must by now have reached a point in our educational development from which we can view college sport less as a political than as a sporting element of university life.

And this reunion between these estranged universities should be the signal for general gathering of representatives from all eastern colleges. We need in this respect to take lessons from the Middle West. There absolutely must be co-operation in rule making and co-operation in rule enforcing. At the present moment, although the Harvard and Pennsylvania rules are practically similar, they differ on important questions from those obtaining at Yale, at Princeton, and at Cornell, though not so materially at the last. As a perfectly natural result, there is confliction in interpretation, undignified squabbling, and unhappy misunderstanding, which do much harm to college sport. The remedy is—establishment at each university of so-called faculty athletic control; not so much for the purpose of the intimate association or personal management of the sports, as for the purpose of securing a mature and dependable and permanent body, whose word will be final, and whose interest in the wholesomeness of university sport, greater than the winning of any single contest. There must be a spirit of confidence among the universities; much better give up intercollegiate sport than resort to sending emissaries around the country to investigate the past records of a rival's athletes.

There never was a time in the history of American college sport so fitting as this for a general meeting of university representatives; if Professor Hollis from Harvard, and Walter Camp from Yale, would jointly or separately send invitations to the leading Eastern colleges for such a meeting, it would be accomplished forthwith.

Whether or not such happy result be forthcoming, in addition to acceptance of the "Providence Rules," there are three provisions that should be universal, for together they constitute a *sine qua non* of healthful, peaceful college sport:

(1) Appointment of a faculty athletic committee, with alumni and undergraduate representation, which shall be the responsible head of sport at every college.

(2) Restriction of college athletics to undergraduates.

(3) Protests against the eligibility of an athlete to be made ten or more days previous to the game under discussion, or not made at all.

It ought to be quite possible, under such conditions, for universities to settle disputes amicably, but arbitration should be agreed upon in case of all else failing.

And, yes, there is yet one other essential to healthful, peaceful college sport—consignment to the depths of the Styx of those who, in troublous times, fill the newspapers with recrimination, personal exploitation, and Y.-A.-P.

Report of the New York Racing Commission

The splendid report of the New York State Racing Commission is one which should have the attention of all interested in the thoroughbred; for this report is one not of mere local, but rather of national significance, because of the *personnel* of the Commission (August Belmont, E. D. Morgan, and John Sanford), and, because the racing interests in New York State are overwhelmingly greater than those of any other section of

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the country. Therefore, the suggestions of this Commission command attention.

Among the statements emphasized in their report are (1) that produce stakes are the backbone of thoroughbred breeding; (2) that the permanent prosperity of the breeding industry is best served by granting recognition to only high-class and permanently established racing plants; (3) that stakes for fillies and for long-distance races be established, on the strength of the success of the latter last year. It points out that 1901 was the most prosperous racing season in the history of the State, and that the increase of revenue to agriculture societies was considerable in consequence.

It is a comforting thought that the racing interests of the Empire State are cared for by men of such character and sportsmanship and experience as those composing this Commission; and it is to be hoped their recommendations will be given permanent form at Albany.

It is "Up to" Gov. Odell Once Again

The New York State Forest, Fish, and Game Commission, in its recent report transmitted to the Legislature, makes very important recommendations, which all sportsmen hope, will have weight with Governor Odell, although his attitude towards the fish and game interests of the State since inauguration does not warrant confidence in his giving heed to these or to any other needful recommendations.

That outrageous measure giving over to political machine patronage the State institutions for the insane, is not the only lunatic bill Odell has advocated since he went to Albany.

In brief, the Commission recommends "that constitutional amendment be provided for the application of scientific conservative forestry for State lands. . . .

"That spring shooting of wild fowl and birds of all kinds be prohibited." It is to be remembered that the Governor only recently vetoed a bill prohibiting spring shooting, which passed the Legislature and came to him for signature.

"That a license fee of $50 be imposed on non-resident hunters, excepting members of organized clubs in the Adirondacks. . . .

"That provision be made for licensing of guides."

These are very excellent suggestions, and deserve the support of all clubs and associations interested in the conservation of this State's game.

It would seem entirely within the province of the Commission to now take up that defective game law which, as now worded, gave excuse for Justice O'Gorman in the Supreme Court to cut down by $825,000 the original State claim of $1,168,315 against that cold storage company which the Chief Game Warden last year brought to book for gross and repeated violation of the State game law. Because of the substitution of "an" for "no" in the wording of the law, this storage company is likely to slip out of the greater portion of the adjudged penalty.

There is also one other very important matter rightfully belonging within the province of the Commission, *i. e.*, the question of pound nets. If some prohibitive provisions are not made pretty shortly with regard to pound nets during the months of April, May, and June, when the game fish are en route to their spawning grounds, it will not be many years before there will be no fish to protect. It is impossible to calculate the destruction to fish life now being worked through want of strictly enforced laws. Those seeking information as to the amount of devastation possible to illegal netting may gather overwhelming data by studying the present situation in England, where they thought not of closing the gate way until after the spawn were eaten. We have not yet reached that condition in America, but it will come —unless preventive laws are made soon.

New Orleans Sportsmen, Attention!

Recently a dispatch, started from New Orleans, has been going the rounds of the press, to the effect that a "Mr. J. M. Cummings, Treasurer of the Louisiana Cypress Company," took two Chicago friends duck-shooting on Louisiana waters; "that the party was gone just a week," and, employing "a large force of hunters to keep the ducks flying," killed in that time "between 1500 and 1600 ducks and geese." This comes pretty near being the most disgraceful slaughter to have been heard of recently. If any Southern sportsman's club has the name of this Mr. Cummings among its members, it should give him a lesson in the ethics of sportsmanship.

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THE GAME FIELD

By EDWYN SANDYS

ONE of the most formidable obstacles in the path of those who strive toward the proper protection of game is the misunderstanding of the subject by al large and more or less influential class of citizens. These good people, hard-headed, hard-working and keen in their pursuit of business and political and social advancement, have no sympathy for anything which, in their opinion, encourages the wasting of valuable time. To them the true sportsman is a shiftless sort of fellow, an easy-going, unbusinesslike chap, who is given to neglecting highly important matters for the sake of prowling about in quest of a few almost worthless birds. It never occurs to these unsympathetic ones that their one always-in-season-game—the dollar—and their desperate chasing of it causes them to neglect matters of grave importance. In their ceaseless striving they forget that truest of short stories of old which crisply tells about the beam and the mote.

But it is not altogether by their frequent harsh criticism and permanent half-concealed contempt for "loafing gunners" that these proper and hustling souls accomplish harm. The very narrowness and sternly-defined boundaries of the path they tread frequently gives them a considerable amount of influence within their small spheres of activity. They are known and respected as shrewd, progressive business men; they have fairly won their positions among their fellows, and also naturally possess a certain amount of influence over them. In politics they are decided, often aggressive, hence their support to any movement and their signatures to any petition carry weight. Like the great majority of average people, they are apt to pass hasty judgment upon matters which they do not at all understand, and are ready to do a good turn, when it costs nothing, for people who may be useful to them in other directions later on.

So far, so good. Some schemer, or malcontent, in their town learns of a proposed change in the game laws, which, if carried through, will interfere with the heretofore enjoyed privileges of one, ten, or one hundred men, and will be of lasting benefit to ten thousand other men dwelling beyond the limited horizon of the place in question. At once the walking delegate is busy. The proposed measure would not at all suit the convenience of himself and immediate friends, so it must be headed off. A meeting is held, a petition prepared and signed by those present, then the walking delegate sallies forth to secure the weightier names of the prominent business men who were too busy and uninterested to bother about the meeting.

The syren song of the delegate usually is to the effect that the proposed change will be the worst of class legislation; it will favor the rich and oppress the poor; it will turn what has been a free-for-all into a special event, which the poor may wistfully scan from afar, but take no active part in; it will preserve the game which we protect and feed, for the special benefit of a lot of rich fellows away off somewhere, who only come near us to kill off our game, tramp over our grounds and, incidentally, our rights. This sounds good, costs nothing, down goes the name, and the keen business man has made a hit with "the boys." The next business man listens to the song, sees the big name, scratches his below, and so it goes down the line, until the last useful man, who is utterly ignorant of matters concerning the real welfare of game, has done his benighted best to frustrate the earnest, patient efforts of a band of devoted sportsmen, who do know about game, and who are only trying to preserve what is left for the direct benefit of the very men who have in ignorance marred the important work. The bill is introduced to the powers that seem to be, the opposition unfurls its long petition, the powers that should be, but ain't, read the names of influential business men, and—well, the bill gets it where the quail got the number eight!

Of course, the great trouble is that the wrong people have the say. They may know all about their own affairs and much about politics and popularity purchasing, but they are densely ignorant of the game they try to play when that game has hair or feathers on it. Because Marconi is a "lightning sharp" is no good and sufficient reason why we should appeal to him concerning the wireless signaling of the "lightning-bug," nor is the dirigible French balloonatic necessarily the highest known authority on the wingishness of the Archæopteryx. Our game-law makers some-

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times forcibly remind me of Kipling's Colonel, who "can manage the Railways of State, Because of the gold on his breeks, and the subjects wherein he must pass; Because in all matters that deal not with Railways his Knowledge is Great."

THE men who know most about game and the sort of laws required for its protection are the true sportsmen, who have no axe to grind nor desire to make money out of what to them is what it should be—a clean, wholesome pastime. From sheer love of sport, these men study deeply of the best authorities, and obtain a scientific and practical knowledge of game and its needs, which no mere gunner or dealer ever can hope to possess. To properly handle the question of game protection one must be possessed of a broad and comprehensive knowledge of beasts and birds, and also be himself sufficiently broad in his ideas to fairly weigh those oft-times opposing interests —the local, and what might be termed the national, for the welfare of game really is a matter which concerns the nation.

A CHEERING sign of the times is the present widespread interest evinced in the introduction of foreign game birds, and the more valuable movement toward the restocking of old-time covers, which, through over-shooting and other causes, have become barren of feathered game. Regarding the importation of foreign game, there is little to be said. The trouble appears to be that most of the parties interested are looking in the wrong direction. The best of the European birds include the capercailzie, black game, red grouse, partridge, and woodcock. The latter would be no great acquisition, as we have a much better though smaller member of his family. Judged by the standard of sporting and edible qualities, the American woodcock so far outranks the European species that any comparison is entirely unnecessary. The partridge we already have, and the day may yet come when the bird will afford sport to more than a select few. It is an excellent bird, a vigorous flier, and, while much larger than our quail, not unlike it in several habits. Its size would place it between our quail and ruffed grouse, but in this country it would be inferior to either native as an object of the sportsman's pursuit. Partridge shooting, early in the season, is somewhat like quail shooting, a bit easier, and lacking that charm of infinite variety which quail shooting never fails to offer. This, however, is less the fault of the bird than of the conditions. Here, a man may in one day follow quail through every sort of ground from marsh to heavy forest. Possibly in time the Americanized descendants of British partridge may learn to adopt the tactics of their kin. Even then they would remain easier marks than quail in the open, and still easier than quail or ruffed grouse in cover.

The black game is an exceedingly handsome and gamy bird, a strong flier, and by no means an easy chap to get the better of. Time alone can prove how much of our huge territory will afford him suitable haunts. At first glance it would appear that the New England country, portions of the Canadian Provinces, and certain sections of our Pacific side would comprise the best territory for him.

The red grouse is a rare good bird. Nearest related to our ptarmigan, he would here find a niche for himself between the ptarmigan and the sharp-tailed grouse. As a sporting bird I should, of course, rank him far ahead of the ptarmigan, and perhaps even a bit before the sharp-tail. The problem is just where to find a suitable country for him. At home he is a bird of the moors, of which we have, growths and all considered, no close imitation. Some parts of our far Northwest and of British Columbia would come nearest to matching the Scottish strongholds of the royal red fellow, but the prospect even there would be rather dubious. In speaking of all these birds I, of course, am not referring to the possibility of rearing and preserving a few (which, with care and expense, might be done at many points), but of establishing a species, with a fair prospect of its furnishing future sport worth the having.

The last and greatest bird of the foreign quintette is the capercailzie. While we have nothing at all like him, his place here would be between the big sage grouse and that king of all gallinaceous game birds, the wild turkey. As the sage grouse is the cock-of-the-plains, so is the capercailzie the cock-of-the-woods. He is indeed a grand fellow, and, so far as I can see, portions of New England, especially Maine, a large area of Quebec, part of Ontario, and possibly of British Columbia, also of Michigan and Wisconsin, should furnish him the sort of home he prefers, *i. e.*, a region of pine fir, etc., and a winter climate somewhat like that of his native ranges. The sport he would afford would properly be for the rifle, and would be something akin to but greatly inferior to turkey trailing, inasmuch as the great grouse usually is shot while in the act

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of calling from his perch in some tree. Still, to stalk a bird of his size and wary nature would be no bad sport.

So much for the birds in question; now, how about their actual value as additions to our long list of game? While it is far from my desire to discourage the importation of foreign game, yet my firm conviction is that the money would be better spent if devoted to the welfare of our own birds and to the restocking of depleted covers with native game. It frequently is both wiser and better to endure the ills (?) we have, than to fly to others that we know not of. In the Mongolian pheasant we found a foreigner that was worth while importing. The birds has done well in the West, where he at present is as much at home as any native, and he has proved that others of his near relatives might wisely be considered. Sportsmen should bear in mind that of gallinaceous game birds, including the pheasant, we have fourteen species, which, with their races, number no less than forty-four separately named birds, of which the great majority is well worth the best of care. In fact, no country surpasses this in the matter of upland, shore, and water birds. Hence there is no pressing need for foreign game. While it is possible to find a species here and there worth adding to our list, the real need of the hour is a protection that will protect, and the securing and rigid enforcing of all needful laws for the welfare of the native game. Our growing sons have a right to expect this much of us, and we should look to it that the record of our stewardship forms clean, instructive reading.

"WHICH do you consider the hardest bird to kill?" is one of a lot of recent inquiries from youthful nimrods. That depends. Perhaps five veteran sportsmen would give five different answers. Off-hand, I should say that a teal late for supper and with a sharp wind at his tail would come pretty near being It. Conditions play so important a part, that the answer is not readily found. An upland shot frequently finds water-fowl, especially canvasback, extremely difficult, and vice-versâ. The chief trouble here includes the tendency to underestimate the distance and speed of the game, and also the entirely novel conditions under which the gun must be handled. Get a duck shooter and a man from the uplands to change places, and I would bet on the man trained on water-fowl making the better showing. His hardest tasks would be grouse, quail, and cock in thick cover, but in the open he should get his share of any and all sorts of game, simply because his previous training surely taught him how to hold well ahead, and to pull without stopping the smooth swing of the gun. These two points are as valuable to the upland shooter as to the wild fowler, and duck shooting teaches them better than any other form of the sport. In fact, the only thing likely to bother the wild fowler would be the cover, and with his natural all-round handiness he should speedily grasp the point and curtail the holding on process. It would be simply a question of hurrying up—a comparatively easy task.

But with the upland man attempting duck, it would be entirely different. In a sink-box he surely would feel like a member of a lost tribe—everything would be against him, and if he didn't make a mess of it he would be a phenomenon. At point or flight shooting he probably might at first fare but little better. Not only would fowl appear to be much nearer than was the case, but those actually within fair range would be considerably farther off than the average distance of his previous practice. With his feet under him, or upon his knees, he might handle his gun easily and rapidly, but still he would have the estimating of distance, the leading of the bird and the smooth, sustained swing of the gun to bother him. The snappy, usually short-range work of the uplands only answers for duck while they are hovering over decoys; for fowl whizzing past low down, or for overhead work, it will not do. Such fowl must be led, and generously, or they will only shed a few rump feathers, or fly entirely clear.

Returning to the direct question, I should say that the snipe is the most difficult bird to hit. Small, swift, and erratic in his movements, he seldom lies so close as do quail, cock, and grouse. When going straight away with the edges of his wings to the gun, a cross-section of his body will represent an exceedingly small mark—in fact, one a deal smaller than careless observers imagine. Crossing, or passing over, the size of the mark is greatly increased, but even then it is much smaller than that offered by any other of our important game. Only that duffer, the rail, and some of the lesser but frequently swift shore-birds, present so little surface for the deadly lodgment of shot. Apropos of snipe, those who find the straight-away, or rather the as near that as snipe ever go, too difficult, should beat down-wind

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instead of the opposite and usual method, for this reason: Nine-tenths of flushed birds go boring up-wind with swift dodges to right and left, this dodging being the real difficulty of the shooting. By beating down-wind, the gunner compels the birds going up-wind to pass him to right and left, instead of cork-screwing away. This means two important things—a side-view of the bird, hence more to shoot at, and a lessening to almost nothing of the otherwise baffling dodging. I tried this long years ago, and at once the snipe's strength became his weakness, for, instead of flickering off like a feathered will-o'-the-wisp, lo! he was plugging by at close range like a varlet plover.

THE recent death of Albert E. Pond, special game and fish protector of the New York State Forest, Fish, and Game Commission, deprived the State of a valuable worker. Mr. Pond was a member of the New York Zoölogical Society and the Seventh Regiment Veteran Association.

TO the sportsmen of the quail sections the present month is an excellent time for some practical work. Reports from many points say that so far the birds have done very well. What often proves to be the most trying month of the year is at hand, and the men of each northern section should make it their business to see that from now on the birds do not suffer from lack of food. Wild forage is growing scarce, but any shortage may easily be met by the placing of a few sacks of cheap grain at the proper points. Remember that two birds saved now may mean from twenty to forty next fall, and a few days of rare good shooting as payment for a trifle of trouble.

Where birds are regularly fed, it will be well to keep watch for hawks and other foes—notably half-wild house-cats. A reliable remedy for all is a charge of shot, but one cannot depend upon getting a chance at the pests. A couple of tall poles, capped with small bits of board to form resting-places for a couple of energetic rap-traps, are excellent things to stand near the feeding-place. Birds of prey are given to alighting upon such posts, providing they be higher than the other convenient perches in the vicinity. Other lofty perches should be removed. The traps should be made fast with wire or inconspicuous cord, and set (to spring under a moderate pressure), before the pole is raised into position. An angle of a rail fence is a handy place for the pole. Another trap, and a deadly one if properly arranged, is a neatly-stuffed quail, fixed in a crouching attitude to a small bit of board which may be covered with snow or earth, as desired. The decoy should be placed on open ground, so that the hawk can get a good rap at it. By the edge of some rag-weed is as good a place as any, for a live quail would naturally go there. Care should be taken that the bird is plainly visible from all directions. Surround it with snares of brass wire, the spread of loop being about four inches. Three snares, arranged like an ace of clubs and about two inches above the bird's back and head, will answer very well. To support them, split the stems of weeds a trifle, and let the wire rest in the clefts—an extra weed-stalk or so can be easily fixed, where desired. Fine, stiff stalks are the best. Make a small loop in the free end of the wire, tie a fine, strong cord to it, and tie the cord to a bit of dead wood or other suitable clog. Make the cords several yards long and cover the clogs, otherwise they will be too conspicuous. Visit the snares twice a day, about noon and at dusk; take a gun with you. If the hawk be snared, shoot him so soon as within range, lest the sight of you cause him to struggle desperately and break away. Should there be no captive, see that the snares are as they should be, and wait for future developments—there's a hawk somewhere about that belongs to you if you give it time. If a captured hawk has damaged the quail, smooth it the best you can and leave it there. Hawks are not very critical, and another may come.

TO the novice: Don't forget that when shooting in snowy cover you frequently carry your gun at the trail. This means that the muzzle may dip into the snow, or scoop up a little while you are getting over a fence or log. Even so slight an obstacle may mean a burst barrel, so wise people who desire to remain here a while longer never fire a gun with snow in the muzzle.

THIS is a period of rest for most bird dogs in the North, and the rascals wax fat. Don't allow your dog to pile on fat. I let mine round out nicely, but nothing approaching grossness. That much is good for him—more would be bad. Let your dog run with the sleigh, don your skates, and make him pull you a few miles; neither will hurt him, and he'll enjoy the fun. If you can't work him this way, take him out at least twice a week and make him beat a few fields. You, of

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course, will avoid anything like keeping him too fine. A let-up in work is good for him, but hog-fat loafing is worse than over-work.

FISHING through the ice is no bad fun these cold white days. Upon many northern waters fishing with "tip-ups" is a regular winter pastime. The rough-and-ready "tip-up" is made of two pieces of lath, one about two feet long, the other half that length. A hole is bored near an end of each, and the two are fastened together by a screw, which allows the shorter arm to shift under slight pressure. Four or five of these being made ready, a line to suit the depth of water is fixed to each movable arm, a medium-sized hook made fast, and each outfit wound up. Equipped with these, an axe to cut through the ice, a big pocket-knife, and fat pork or other meat for bait, the fisher is ready for business. Above some known fishing-ground he chops the necessary holes, about a foot in diameter and a few yards apart. After removing all fragments from the holes to prevent too rapid freezing, he takes his big knife and chips out a neat socket for the end of each "tip-up" and places each in position. Some small ice or snow tamped about each stick at once hardens and makes everything firm. Then, after baiting up, he drops in his hooks, straightens each movable arm, and bides the issue. When a fish bites, the arm of that particular tip-up is at once jerked from the perpendicular, thus signalling the catch. For a couple of hours, on a good day, a man frequently is kept "on the jump," for a school of perch is apt to be enjoying "recess" when the baits go down. When the ice is right, a man can have fun skating about and still keep an eye upon his tackle. At many points shelter houses are hauled upon the ice, and when a party of middle-aged city men have taken possession, there is fun galore. A lot of heavy-weight, white-whiskered, red-faced boys, playing all sorts of pranks to kill time, or rushing from the shelter on real and false alarms, to go slipping, sliding, whooping, maybe crawling in mad haste to the "tip-ups," forms indeed a comical spectacle. It is good for the elders, too, to shake off their cares and laugh till the hills laugh back; and if now and again some solid old bull, or bear, suddenly sits down on the ice-trust so hard that the whole of Wall Street shakes—what of it? He may grunt a bit to-morrow morning, but he's having clean, wholesome fun to-day. The captured fish, when tossed upon the ice, freeze stiff in a few moments. Sometimes a fish so frozen is carried home in that condition and shows signs of life after being put into cold water to draw the frost out of it.

IN Delaware the protection of game is confined to quail, and the results of the past season's efforts of the Delaware Game Protective Association have been most gratifying. In this State the law provides that the enforcement of the game laws shall be placed in the hands of the Association, so that no interest is taken by any State or county official in game matters. The open season, which extends from the 15th of November to the 31st of December, was particularly well observed, and extraordinary precautions taken to prevent the shipping of game out of the State; and with signal success. There is a law peculiar to this state, which imposes a penalty on the purchase of game for purposes of profit or sale; this allows the sale of game by the person who shoots it, and while not strictly, as it should be, for the purpose of game protection, it was a compromise law passed for the benefit of the farmers of the State, many of whom consider the game on their farms a legitimate source of income when killed and sold. In spite of this law for their supposed benefit, the sentiment in some districts is very much opposed to the Game Protective Association; the farmers being so short-sighted as to feel that harm is done their interests by the law that prohibits the shipment of game out of the State. Some carry it so far as to announce that members of the Game Protective Association shall be denied shooting privileges on their premises. It is to be hoped, however, that the recent season, more successful than usual, will show them the benefits of game protection and bring to their notice the value of shooting rights on properties where game is plentiful; convincing them that the permanent value is in live game for the sportsman and not in dead game for market.

The law which compels non-residents to procure licenses before shooting was well observed. It is also learned that while there were reports of trapping and netting of birds, the practice has been reduced to a minimum.

The unusual observance of the game laws was largely due to the unremitting vigilance of the Game Protective Association, which showed it meant business by several arrests at the opening of the season; these had a salutary influence throughout the season.

A word to the wise, etc., etc.

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FISHING FOR PIKES IN MARCH

By WILLIAM C. HARRIS

"The American Angler."

It may be truly said the only "decent" fishing in the month of March is that for the different species of the pike family, which range in relatively large numbers as far east as the Atlantic, west and northwest into Minnesota, and south from Canada to Kentucky, a few having been found in the waters around Chattanooga, Tenn. I know of no other species that live in the vast region named, that are so worthy of the rod, certainly none that can be taken so freely and in such numbers during this month. So soon as the ice disappears from the lakes, and when the rim of it is still along the shores, they come eagerly to the lure, and the laws are open for them in the month of March in their habitat as above described. These fish appear to be impervious to cold—no one has ever found them torpid in action, and many believe that they do not hybernate during the coldest of winters.

The pike family includes the pike, irregularly marked with yellow blotches on the body; the mascalonge, black spotted, of the St. Lawrence system, which includes all the Great Lakes and the waters tributary to them; the mascalonge, unspotted, of the Mississippi River region and the waters flowing into it; the cross-barred or reticulated pond pickerel, which is never found west of the Alleghanies, although recently some are reported as living in the Yazoo waters; and two other species—the eastern and western pickerels, which are the smallest of the tribe, seldom reaching a length of more than twelve inches.

Of the two species, I have always thought the mascalonge of the Mississippi system more than the peer of his St. Lawrence brother; the first, when hooked, invariably leaps; the other seldom shows more than half of his body out of the water, and only then when he is forced to do so by the line of a muscular angler.

The mascalonge of the Mississippi system of waters is *sui generis*. Their marked individuality in color and game qualities stamp them as such. Take one, as I did, fresh from the water and note his resplendent coloration; blackish on back; brown and golden bronze nearly to the median line, along which lies a faint emerald-tinted band; below a faun of delicate shading blending with the creamy white of the belly, through all of which a silver sheen is glinting, while here and there faint, black irregular dashes (— —— — -- --) looking all the world like the telegraphic hieroglyphics. Contrast the above with the coloration of the mascalonge of the St. Lawrence as officially given by Jordan and Gilbert:

"Color dark grey; sides with round blackish spots on a ground color of grayish silvery; belly white."

In the mascalonge we have a doughty quarry to capture. His game qualities are not relatively, when size only is considered, as great as the trout, black bass, or even the grayling; but who can experience the feeling (a strange admixture of surprise, delight, and awe) when a big one, in his eager rush for the spoon, throws his great body two or three feet into the air, and then fights with frantic rage and sturdy insistence until gaffed and boated, without realizing that to kill a mascalonge is a red-letter in an angler's lifetime.

Permit a wrinkle or two as to angling for this fish. As a rule, the average boatman rows too fast; make him slow down, and if he tells you that he must row fast to keep the spoon clear of the bottom grass—a disputed point, usually, which you can easily settle by observing the play of your spoon—insist upon his rowing slowly, and, if necessary, shorten your trace to fifty, even thirty feet. Mascalonge will not infrequently seize the lure within ten feet of the boat, if its movements are measured, slow, and without noise. I have had more than one to do it. Don't be afraid of the weeds; your boatman always will be—he don't like to be disturbed in his dog-trot methods. The reason more mascalonge are not killed in a day's outing is because we do not reach their lairs. They lie in the thick water weeds and lily-pads along the shores, and the rule is troll along the outer edges of them; but the ordinary boatman will not row his boat close enough to the shore.

The most scientific and successful method is to have your boat held stationary, here and there, and cast the spoon from the reel into the grass-growth near the shore; but this is fatiguing and weed-catching, causing frequent incursions into the grass to detach your hooks, particularly if there are plenty of lily-

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pads, the stems of which are tough, and hold the spoon with a hard and fast grip.

I am aware that many anglers believe that rapid rowing makes the action of the spoon more attractive to the fish, but if this be so the effect is neutralized by many mascalonge missing the lure. I have had at least three—and large ones—do so in their mad rush for the troll, which was speeding through the water at the rate of seven or eight miles an hour. So row slowly, Mr. Boatman, and give the "masky" a showing!

This brings me to a second wrinkle:

The average fisherman does not hold himself and rod sufficiently in readiness of poise for the pluck and first mad rush of the mascalonge. At the first swirl of the fish the strike should be instantaneous and a taut line maintained. Hold your rod—with thumb, guarded by a stall or a leather overlay, always on the reel—at an angle of about 45 degrees, that you may be ready to strike at once on sight, or feel of the pluck of the fish. The mascalonge, if he has a foot of slack line, will at once eject the spoon from his mouth, unless he is hooked fast when the first heavy rush is made. He feels the gritty impact of the metal, realizes its non-edible character, and out of the mouth it goes before your reel can be worked to take up the slack line, which is always there if the fish take the spoon with a rush towards the boat. Of course, I am communing with those anglers who take from the spoon before using it those deadly gangs of nine or more hooks, substituting only one good one, and that is placed about three inches on a wire snood below the wings of the spoon. Any other method is brutal, and the man who uses these triple gangs to catch a fish will, if he gets a chance, and nobody looking on, shoot a game bird sitting placidly, and without fear of danger, on a tree or on the ground. Finally, always hold your rod at such an angle as will permit you to strike effectively.

As to tackle: You can kill a mascalonge on very light gear, but it must be used as if you loved him; trust to its yielding resistance, and don't attempt to "yank." Do with him as you are compelled to do with a thirty-pound salmon on a sixteen-ounce rod—give and take. I generally use a rod 8¼ feet long, weight 7½ ounces, and have never had any trouble in boating fish under thirty pounds. I never caught a larger one. By the by, we always made our boatman stop rowing as soon as the fish was brought into deep water—at which the man at the oars always seemed somewhat astonished, and was inclined to protest—and we felt the fish well in hand. The miserable practice of dragging any fish around a lake with the oars should be discountenanced. In such case the boatman's muscle kills the fish, not the angler. Besides, if you use a light rod it is often impossible to bring, when the boat is in motion, a heavy fish to the gaff, even when nearly exhausted. Again, a fish can be killed more artistically on the rod than on the oars—any other method is butchery.

Use a good multiply reel; a line at least three hundred feet in length, not heavier than what is known as No. 9 cutty hunk. Spoons of the size of No. 8 Skinner are generally in use, but we prefer a size not larger than No. 5, and have found them effective, particularly when the triple gangs are taken off and a single hook substituted.

DOUBTLESS no man lives who has had more and longer practical experience with the mascalonge than F. W. Cheney, of Jamestown, N. Y. He has lived his life among them at Chautauqua Lake, N. Y. In an interview with him, he unfolded a new phase of the habits of his favorite fish—feeding and taking a line at night. He told me he had observed that on a clear, bright day and on brilliant moonlight nights that mascalonge do not bite freely, while on ordinary nights, cloudless or otherwise, they take live bait, especially shiners, in preference to the spoon. At such times they come in from the deep water to the bars to feed, and swim near the surface, so a light sinker only is needed, as the bait must run near the surface, hence use the same rods and reels that have been in service during the day, taking off the sinkers and shortening the line. At night it is necessary to use a click reel, as you cannot see your float (necessary to keep bait from fouling on bottom) half the time. Row along about as fast as you would with a spoon when trolling. When your reel clicks, stop your boat and wait until your fish has time to gorge the minnow. You can tell when this is done by carefully raising your rod until the line is taut, and when he starts off, strike quick and hard. This is good scientific and legitimate fishing, best of sport—not merely trolling.

One thing will be noticed when fishing at night: when a mascalonge takes a bait he never leaves it until swallowed, yet they are not as game, and are easier to get into the boat; but, as a compensation, you are more liable to get larger fish than in the day-time.

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When at night on the bars, and it is too dark to keep on the feeding-ground, stick a stake in the centre of the bar and hang a lantern to it, so that you may always keep your bearings. The water must be clear and quiet, for a windy night is not good; the fish bite best in the early part of the evening.

When the mascalonge feed at night they do not do so during the day. A good way to locate them is to row ashore on a still night and listen. You will hear them splashing when they are after minnows. The latter are feeding on flies, and the mascalonge are in turn feeding upon the minnows. The best time to fish at night is during September and October, warm nights being the best.

We all know that the true test of a game fish is his habit of leaping, after being hooked, on a *slack line*. Few of them—the black bass, rainbow trout, and salmon of the fresh waters invariably do so—have this trait, and the mascalonge of the Mississippi system belongs in this honored class.

SOME one has said, years ago, that the pike was appropriately named. Let us note in confirmation his great length in proportion to his girth; his head, although of immense size, is so shaped as not to hinder a rapid progress through the water, his huge jaws so flattened as to resemble almost an arrow-head in its power of cleaving it. He seems to be formed more for tremendous springs at lightning speed than for long-continued gentle progress; his great tail, with the dorsal fin close above it and the anal fin just below it, enables him with one sweep to dash at his prey with great velocity; but the pectoral fins, which are most used by fish to keep themselves stationary in a stream, are small in proportion. His eyes are placed nearly at the top of the head, so that he can see above him, thus accounting for his lying near the bottom. Perhaps the most striking feature, to a casual observer, is his immense mouth. A mass of small teeth of extraordinary sharpness covers the roof of it, and these teeth, which are all inclined backwards, are so arranged that it is almost impossible for a small fish, or any other living thing, to escape when once that awful trap has closed upon it. The larger teeth have been supposed by many to be used for the purpose of killing their prey before swallowing, but live fish have been taken from a pike's stomach absolutely uninjured. The gullet, or throat, of a pike is very distensible, and capable of being stretched nearly to the size of the large mouth, so that almost anything that can be received into the big jaws can be swallowed whole.

When the pike is in perfect season and condition, the top of the head and his back is usually of an intense dark olive green, inclining to black in dark river water. This coloration is toned down to dark grayish along the sides, which are flecked with dusky yellowish white spots or blotches about the size of a common bean; but sometimes these spots run into cloudy streaks of greater size.

Pike are so constituted that they cannot, under any conditions, resist the attractions of a spoon line whenever they can or do see it. This trait is developed in them more so than in any other of the lake or river fishes. It is their Nemesis. Yet they are taken by many other lines; any form of spinner, dead, alive, or artificial, will attract them. Frogs, young mice or birds, grubs and worms of all kinds, and, if the angler has neither spoon nor bait of any kind, but happens to have about him some red flannel or any kind of red fabric, he will stand a fair chance of catching *lucius* by using it as a troll. A piece of white rag will sometimes answer the same purpose, for the pike takes what he can get, and looks not a gift horse in the mouth, but opens his own widely to all that comes his way.

A very effective way of taking the pike is to stand on the bank of a lake or river and cast a No. 5 spoon outward as far as you can, and then reel in slowly. Don't be too quick, however, in your play, because if the fish is large and touches the shore before he is exhausted, he will, unless very securely hooked, often break away. Above all, do not put your fingers into its mouth when alive, unless you want them severely scarified; and he will close his jaws viciously upon any object after you think he is dead.

We doubt if there is a man or boy east of the Alleghanies who is fond of the angle who has not, at some period of his life, caught a pond pickerel. The fish is almost ubiquitous; either it or its smaller representatives—generally known as the grass pickerel by the farmer's boy—can be found in nearly every pond, large or small, in the Middle and Eastern States. He is a close brother to the pike, but is without spots, having very irregular cross bars, sometimes very faint, but more conspicuous above the median line. He will take a small spoon natural bait, dead or alive, and is peculiarly sensitive to a lure of a strip of his own silvered belly attached to a troll.

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NOTABLE PERFORMANCES AND RECORDS

HOCKEY naturally claims most attention in northern and eastern college circles, and in New York and Pittsburg at this season of the year.

Four series of games are, at this writing (February 7) well under way, as follows:

THE AMATEUR HOCKEY LEAGUE:

Club	*Won*	*Lost*	*Percent.*
Hocky Club of N. Y.	4	1	80.
New York A. C.	3	1	75.
Crescent A. C.	3	1	75.
St. Nicholas S. C.	1	3	25.
Brooklyn S. C.	0	5	00.

THE INTERCOLLEGIATE ASSOCIATION:

College	*Won*	*Lost*	*Percent.*
Yale	2	0	100.
Harvard	1	0	100.
Princeton	1	1	50.
Brown	0	1	00.
Columbia	0	2	00.

Yale's team is in good practice, possesses strong material, has enjoyed the advantage of more frequent trips out of town, and bids fair to capture another championship. Indeed, Yale has won the Intercollegiate championship at hockey ever since the Association was formed.

Brown and Princeton feel most keenly the lack of opportunity to practice. With Columbia's immense student body as a base of supply, and her location within fifteen minutes' ride of the St. Nicholas rink, it is hard to understand why her hockey teams are not more successful. Pennsylvania entered no team his year.

In Pittsburg, the spacious Duquesne Garden affords an exceptional opportunity for good hockey, and many strong teams may be found there. The local championship is being fought out by three clubs, the Pittsburg Athletic Club, Keytsone Bicycle Club, and Bankers, each of which plays seven games with the other two. The score at date is:

Club	*Won*	*Lost*	*Percent.*
Keystone	5	3	62.5
Bankers	4	4	50.
Pittsburg	3	5	37.5

These clubs have also played some notable games with Canadian teams. The most important have been as follows:

From January 15th to 18th, the Queen's University seven, of Toronto, champions of the Ontario Hockey Association, played at Pittsburg, with the following results:

Jan. 15—Queens	1	All Stars	2
16—Queens	2	Pittsburg A. C	1
17—Queens	1	Bankers	1
18—Queens	0	Keystone	2

From January 23d to 25th the Frontenac Hockey team of Kingston, Canada, played with the following results:

Jan. 23—Keystone	7	Frontenacs	0
24—Bankers	2	Frontenacs	2
25—Pittsburg	2	Frontenacs	2

The development of the game continues satisfactorily. Dartmouth and the Massachusetts Institute of Technology are playing smaller teams, and there is no reason why the other smaller New England colleges should not follow suit. Phillips Andover has a good team, which nearly held Harvard to a tie (4—6), beat Brown 4—2, and Technology, 6—2. In New York City, Philadelphia, and Pittsburg good scholastic tournaments continue, which, if properly supervised by faculties and local sportsmen, will go far toward the development of home-bred players—a vital need of the game.

THE amateur speed skating championships were held on Verona Lake, Montclair, N. J., on January 31st and February 1st, under the management of the National Skating Association. The weather was clear and cold, and the ice good; the entries large and representative as usual, so that the winners fully earned their championship titles. The summary follows:

Five Miles.—Winner, P. Sinnirud, Verona Lake Skating Club; 2, M. Wood, Verona Lake; 3, W. Caldwell, Montreal. Time, 17 min., 17¾ sec.

Half Mile—Winner, P. Sinnirud; 2, A E. Pilkie, Montreal A. A. A.; 3, G. Bellevuille, Rat Portage, Can. Time, 1 min., 25 2-5 sec.

One Mile.—Winner, M. Wood; 2, F. R. Sager, New York A. C.; 3, G. Bellevuille. Time, 3 min., 7 1-5 sec.

Three Miles.—Winner, M. Wood; 2, P. Sinnirud; 3, W. Caldwell. Time, 10 min., 19 4-5 sec.

Ten Miles.—Winner, P. Sinnirud; 2, M. Wood; 3, F. R. Sager. Time, 37 min., 4 1-5 sec.

SOME notable performances have been made during the past month, which, though not accepted of record, are none the less worthy of mention. John Flanagan made the sensational practice throw of 29 feet 2 inches with the fifty-six-pound weight without run or follow. This is nearly two feet farther than the world's record.

In practice also A. D. Plaw, the University of California athlete, is reported to have thrown the sixteen-pound hammer the extraordinary disttance of 187 feet, 4 inches from a seven-foot circle. The world's record, held by Flanagan, is 171 feet, 5 inches. Plaw holds the intercollegiate record of 154 feet, 4½ inches.

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And Schlitz is the aged beer that never causes biliousness.

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THE BEER THAT MADE MILWAUKEE FAMOUS

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Machine Type-Setters

Said to be Hard on Operators

The work of a typesetter in a modern printing office is very exacting, particularly if he runs a linotype or typesetting machine. It requires the closest attention and rapid and sympathetic action of both brain and hand. This machine works much like a typewriter. Such workers, fed on ordinary food, give up because of nervous prostration, some in a short time, and some are able to stand it longer.

One of these workers says: "I have been at the linotype three years. It has made a great change in my once robust health. About three months ago, after long expecting it, I completely collapsed, from indigestion and extreme nervousness. The daily physic I had not dared to omit for years, now and then refused relief and a physician was consulted.

"'Change of occupation and diet,' read the prescription, 'advise eating Grape-Nuts food twice daily.' I had often set up the advertisements of the Postum Cereal Co., but somehow printers are apt to think advertisements are not intended for them to make use of. I could not well change my occupation, but did change the diet.

"Since then have used Grape-Nuts, both at breakfast and supper, daily. The results are truly remarkable. The first perceptible change was in the matter of digestion. It has been six weeks since I have had to swallow an aperient of any kind. At the beginning of my experiment with Grape-Nuts I weighed 124 pounds; last evening I tipped the beam at 157½.

"My nerves, which were completely shattered three months ago, are now strong and steady, and I do not tire easily, though I go to bed an hour later on an average than formerly, and have increased my capacity at the machine fully two columns of type a day. I am convinced that Grape-Nuts food is the food for persons of sedentary occupation, especially for those who work with brain in lieu of brawn." CHAS. H. ECKHARD, 177 N. Chambers St., Galesburg, Ill.

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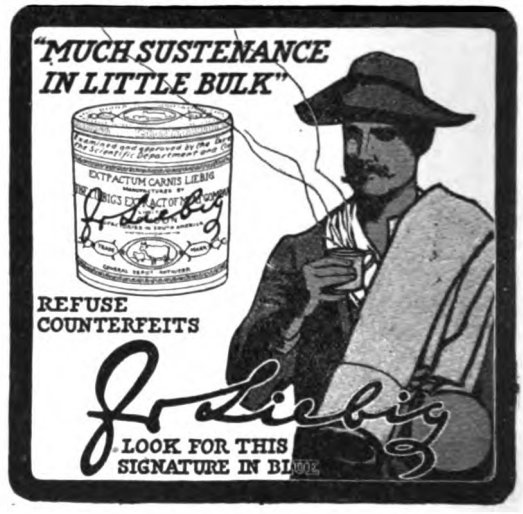

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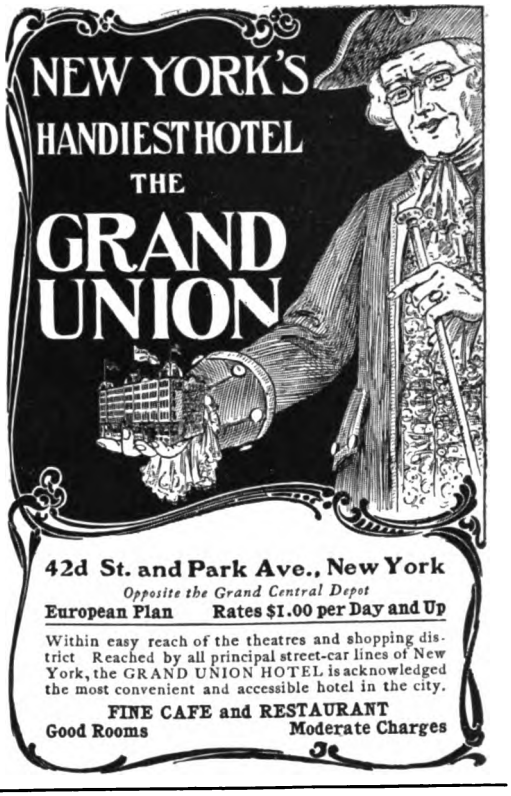

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Forward, March!

Beginning with the April number, OUTING will be printed upon a paper especially made for its purposes. This innovation was necessary owing to the increased number of fine illustrations which it has been planned to use during the coming year. The editor and publisher deemed it poor economy to slight the value of an expensive drawing or a beautiful photograph when its attractiveness might be enhanced by using special paper. To carry the printing detail to perfection it will also be necessary to use especially made inks, and these are now being mixed. These are only small items in the improvement in OUTING which is rapidly being accomplished. It is Forward, March! with OUTING; Forward, March! to the highest standards of periodical literature; Forward, March! to the far front of a unique field; Forward, March! toward building a magazine unequalled in interest, attractiveness and style; a magazine of undisputed superiority and authority.

April Outing

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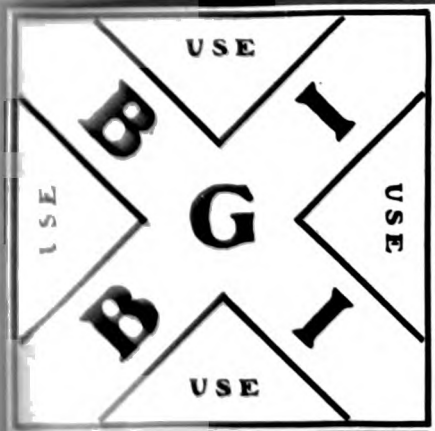

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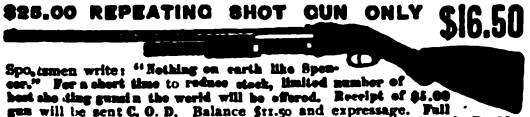

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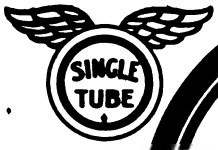

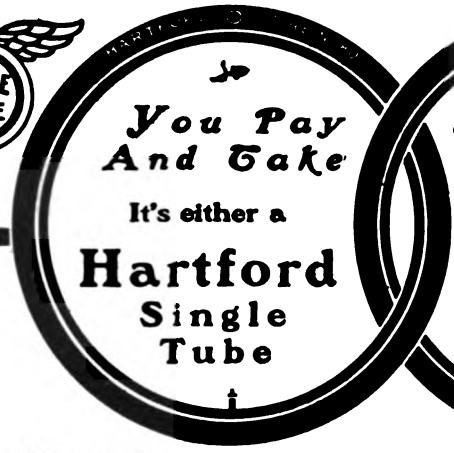

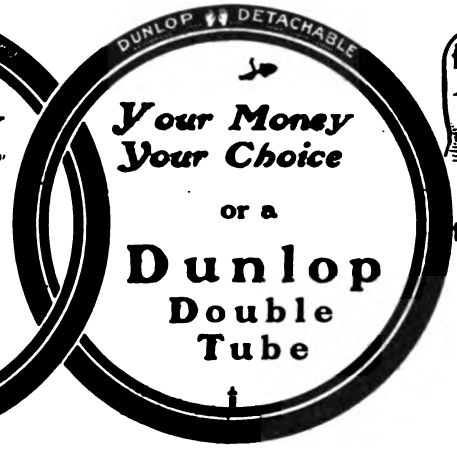

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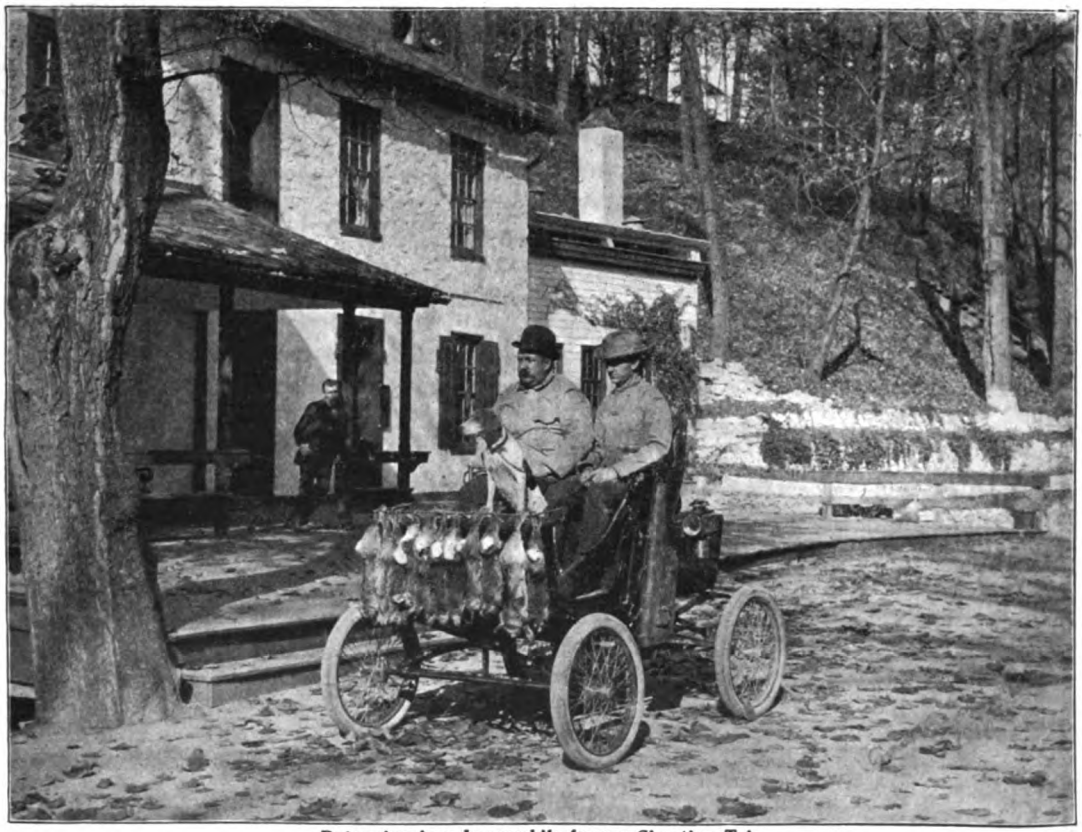

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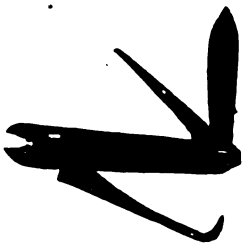

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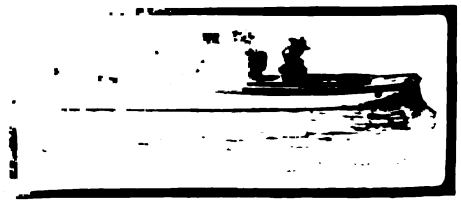

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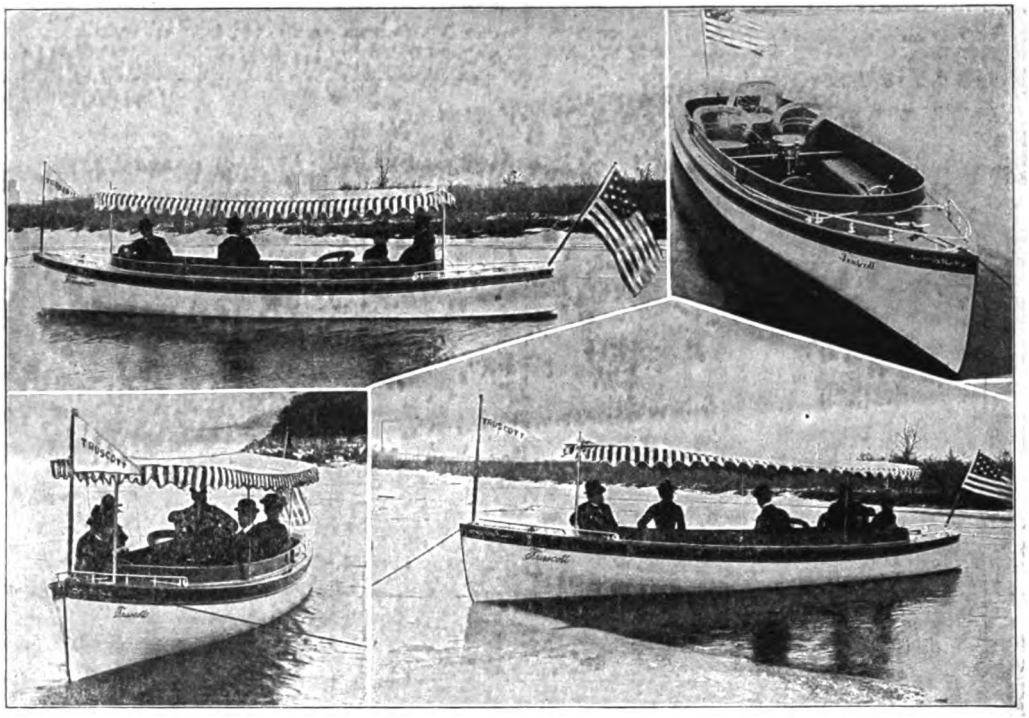

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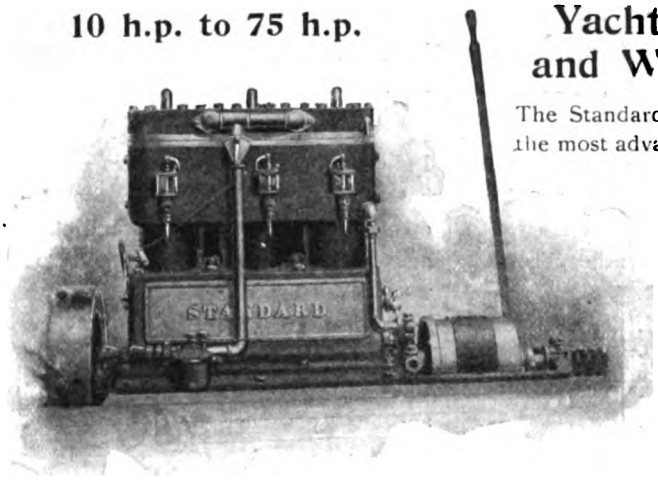

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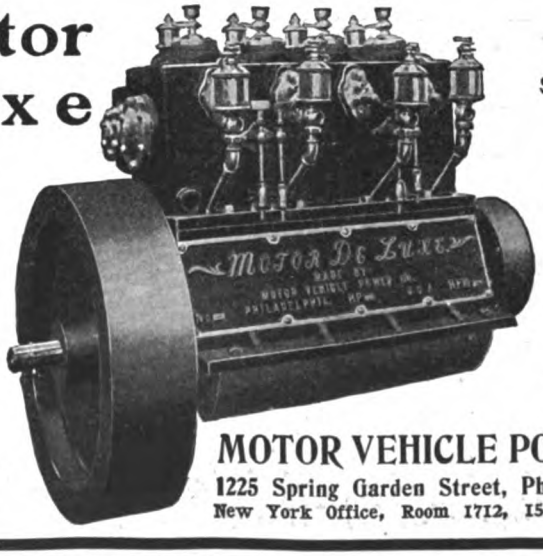

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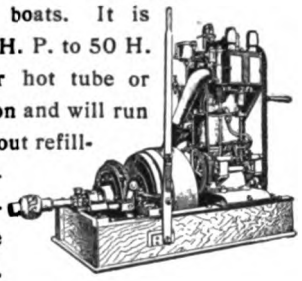

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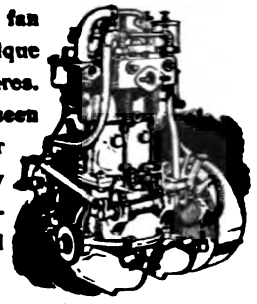

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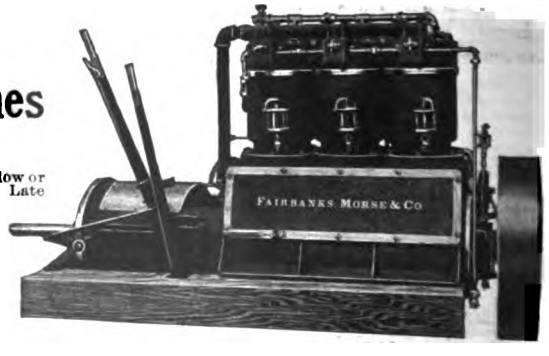

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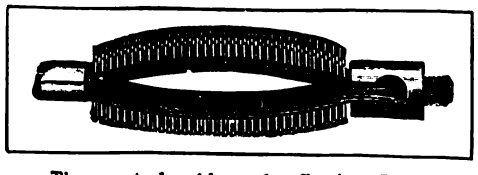

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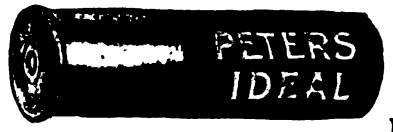

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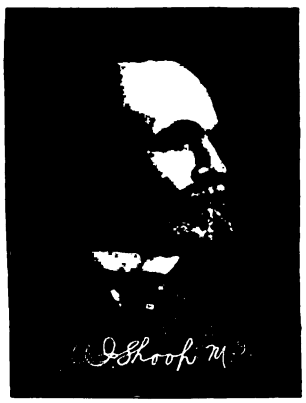

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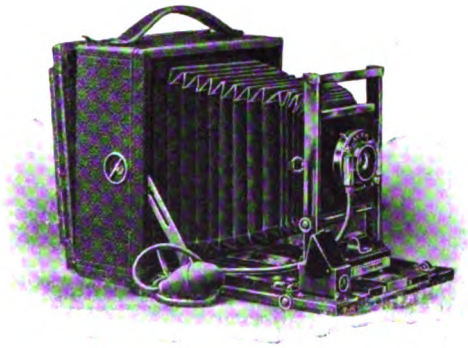

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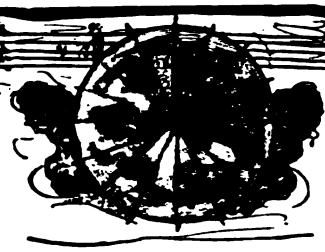

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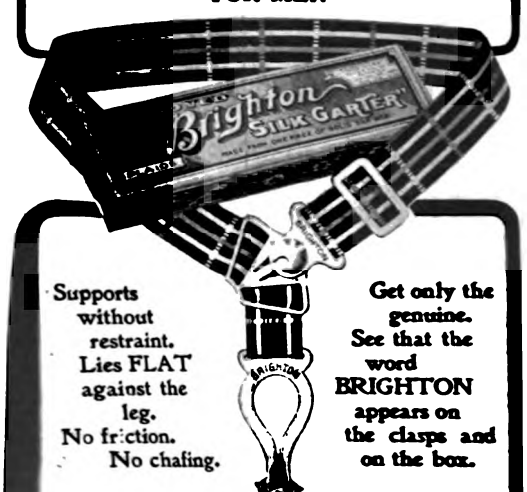

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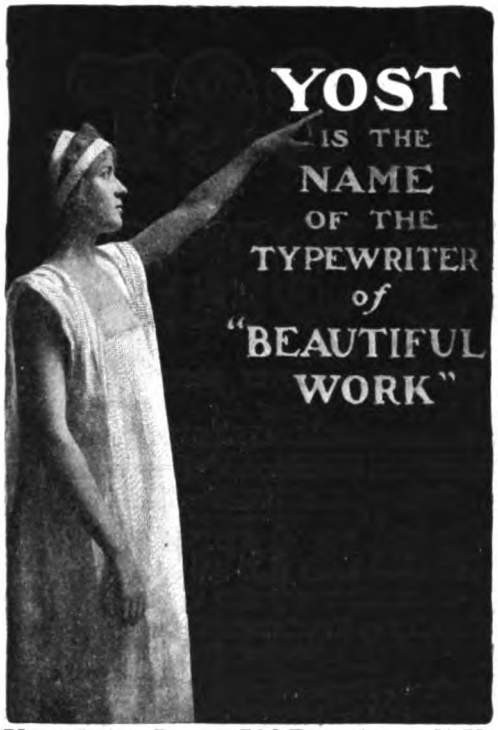

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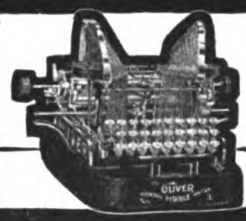

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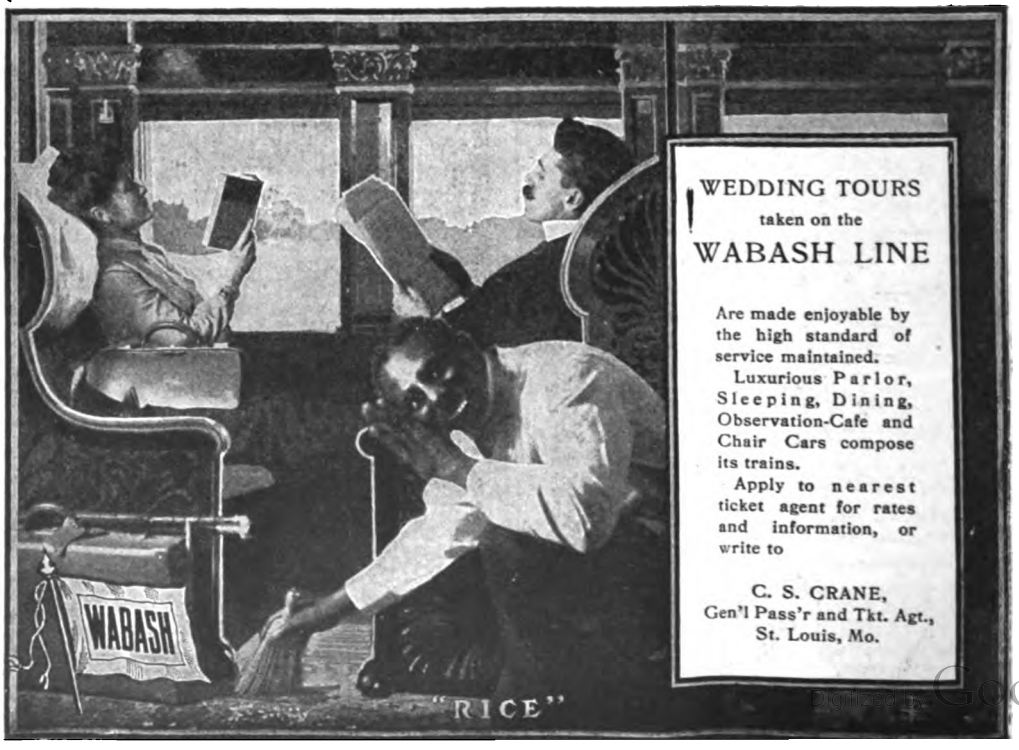

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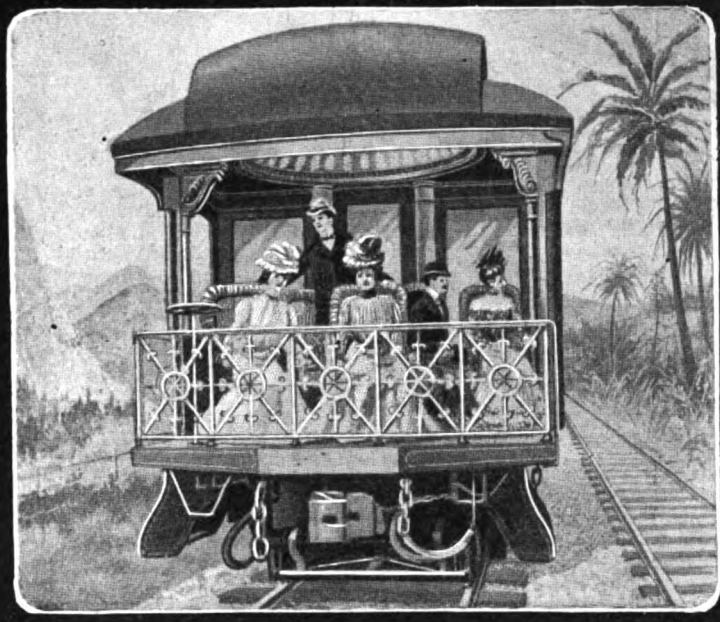

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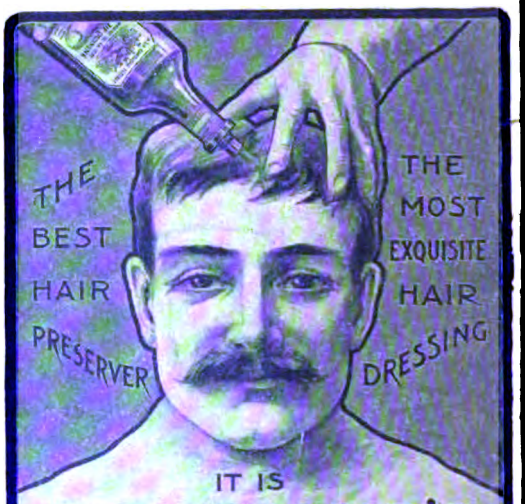

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